This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

HN DKHA E

Digitized by Google

Gov 3059, 5

HARVARD COLLEGE
LIBRARY

TRANSFERRED FROM THE
BUREAU FOR RESEARCH
IN
MUNICIPAL GOVERNMENT

Digitized by Google

Digitized by Google

Digitized by Google

BUREAU FOR RESEARCH
IN MUNICIPAL GOVERNMENT

Gov 3059.5

First International Municipal Congress and Exposition

Chicago, September 18-30, 1911

Held Under the Auspices of

The Chicago Association of Commerce

Digitized by Google

Digitized by Google

MUNICIPAL ADVANCE

Corrections

The paper of M. O. Eldridge, page 22, was presented in the session discussing "Paving."

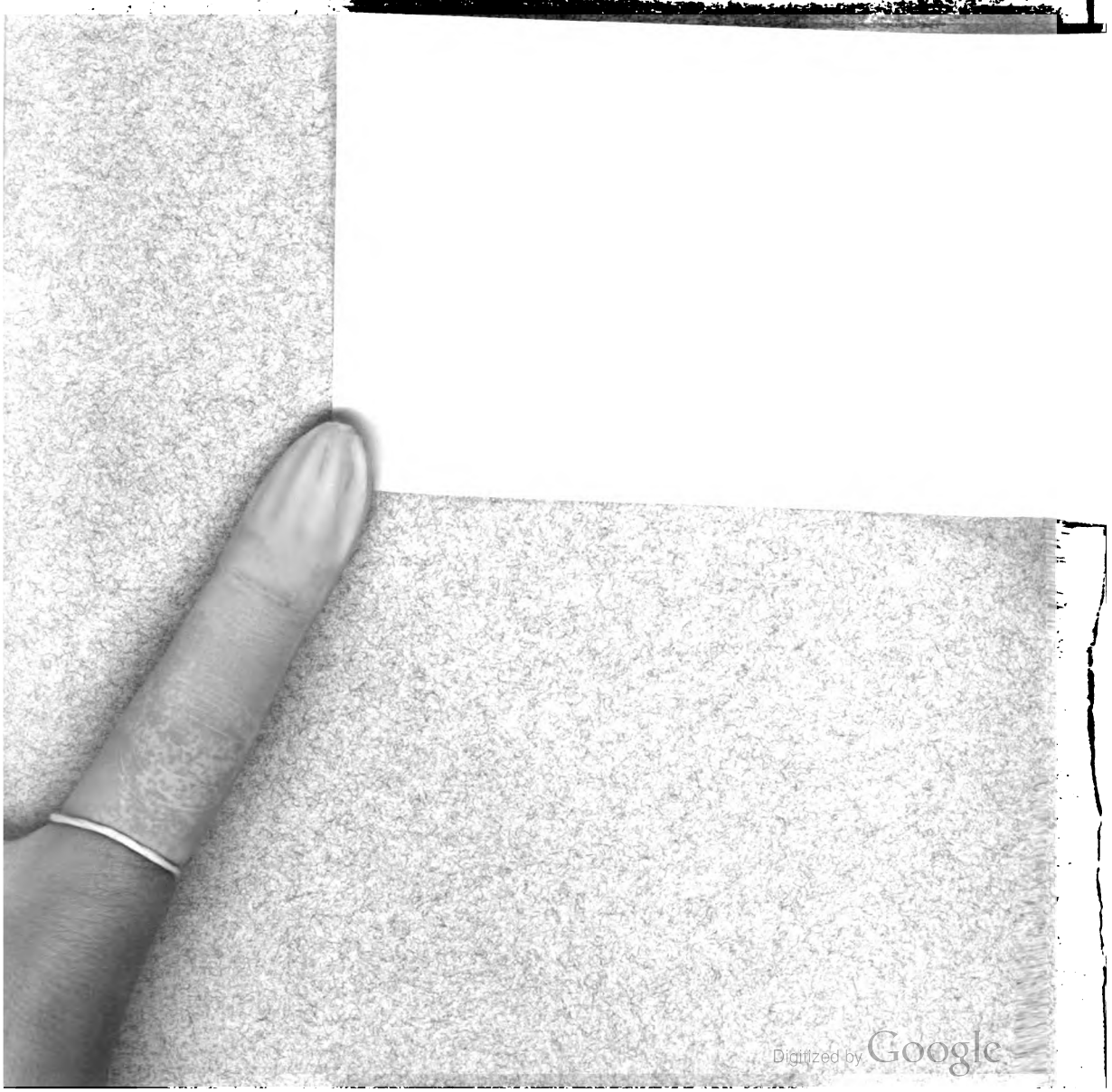
The paper of Charles R. Lamb, page 24, was presented in the session on "City Planning," Charles H. Wacker, Chairman.

The paper of Charles H. Wacker, on "The Chicago Plan" has been accidentally included in the papers of the session on "Woman and the Municipality." It should be grouped with the papers by Charles R. Lamb, Richard B. Watrous and Raymond Unwin on "City Planning."

The general topic of "City Charters" was the matter of discussion in the session presided over by Charles E. Merriam, of Chicago, and addressed by John A. Dix (by proxy); Ford H. MacGregor, James G. Berryhill and H. A. Mason.

Chicago, September 18-30, 1911

Digitized by Google


Digitized by Google

MUNICIPAL ADVANCE

Extracts from Papers on Various Municipal Services Read at the First International Municipal Congress and Exposition

Chicago, September 18-30, 1911

Digitized by Google

HARVARD COLLEGE LIBRARY
RECEIVED THROUGH THE
BUREAU FOR RESEARCH IN
MUNICIPAL GOVERNMENT
Mar. 26, 1925.

Topics and Speakers

Public Utilities

PAGE

Bion J. Arnold, Chairman, Chicago—Problems of Valuation 9
E. L. Elliott, New York Public Lighting 10
H. M. Byllesby, Chicago - Public Policy toward Public Utilities 16
W. D. Norton - Work of Public Service Commission of State of New York 19

City Charters

Charles E. Merriam, Chicago, Chairman.
John A. Dix, Governor of New York—Home Rule for Cities 26
Ford H. MacGregor, University of Wisconsin Commission Government 28
James G. Berryhill, Des Moines—Commission Government 30
H. A. Mason, San Francisco—Framing City Charters under Home Rule 34

Municipal Accounting and Efficiency

Herbert R. Sands, Chairman, Chicago—Public Efficiency Bureaus 47
Le Grand Powers, Washington, D. C.—Need of Statistical Standards 49

Business End of a City Government

George E. Hooker, Chairman, Chicago—Principles of Municipal Procedure 55
G. W. B. Hicks, Philadelphia—Commercializing a City's Government 60
Mayo Fessler, Cleveland - Relations of Civic and Commercial Organizations to City Government 57

City Planning

Charles H. Wacker, Chairman, Chicago—Objects of the Chicago Plan 39
Charles R. Lamb, New York - Problems of Congestion and Transit 24
Richard B. Watrous, Washington, D. C. - Duties and Opportunities of Commercial and Civic Organizations 50
Raymond Unwin, London—The Housing Motive in British Town Planning 53

Woman and the Municipality

Mrs. Mary H. Wilmarth, Chairman, Chicago—Woman's Advance into Social Service 37
Mrs. George Zimmerman, Fremont, O. - Civics and Federated Women's Clubs 38
Miss Mary McDowell, Chicago—What a Woman Mayor in England Did 41
Miss Julia Lathrop, Chicago Charities 43

Paving

John B. Hittel, Chairman, Chicago—Paving Conditions in Chicago 96
James M. Head, Nashville, Tenn.—Building and Financing of Public Roads 98
George W. Craig, Omaha—Street Repairs 98
Prof. Baker, University of Illinois—Features of Pavement Construction 96
M. O. Eldridge, United States Department of Agriculture—Good Roads an Economic Asset 22

Taxation

Harrison B. Riley, Chairman, Chicago - Selection not Election 76
Lawson Purdy, New York—Cooperation and Uniformity 76
Allen Ripley Foote, Columbus, O.—Requirements of a Just Taxation System 80
J. W. Harris, Winnipeg—Canadian Revenue and Taxation 84
John A. Fairlie, University of Illinois—Municipal Taxation in Illinois 87

Digitized by Google

The City for the People

PAGE

Emil Seidel, Mayor of Milwaukee—Municipal Socialism 62
Arthur E. Buchholz, Philadelphia—Factors of the Housing Problem 69
Frank R. McDonald, Minneapolis—Correctional Policies 66
Benjamin C. Marsh, New York—Heavier Taxation on Land Value 73

Control of a Milk Supply

Dr. M. P. Ravenel, University of Wisconsin—Purity Requirements 106
Conference Action on Requirements 115
A. D. Melvin, Washington, D. C.—Bovine Tuberculosis 110

Public Schools

Walter D. Moody, Chicago—Citizen Making and City Building 91
Maurice J. Dorney, Chicago—Educational Reminiscences 92
Carroll G. Pearse, Milwaukee—Educational Progress 93

Reduction of Fire Waste

H. H. Glidden, Chicago—To Lighten the Fire Loss Load 101
H. M. Kelsey, Chicago—Fire Losses and Fire Prevention 101
Edward F. Croker, New York—Features of Fireproof Construction 103
Charles Seyferlich, Chicago—Fire Prevention Day 105

Parks and Playgrounds

Edward B. DeGroot, Chicago—Why We Need the Playground 120
Miss Jane Addams, Chicago—Growth and Use of the Field House 122
Richard M. Walsh, Boston—Boston's Public Baths 123

Contagion and School Inspection

Discussion 117

Water Protection and Sewage Disposal

Discussion 126
Organization of Great Lakes International Pure Water Association 136

Yard Sewage, Stables and Slaughter Houses

Discussion 139

Law in Relation to Health Work

Orrin N. Carter, Chief Justice of Supreme Court of Illinois—Principles of Sanitary Authority 143

Garbage Disposal

Discussion 145

Cost of Health Departments

Gottfried Koehler, Chicago 151
W. E. Park, Rockford, Ill. 152

Municipalities in Germany

Paper written for the Congress by H. Lindemann, of Stuttgart, Germany 154
Municipal Powers in New Zealand 164

Duties of an International Municipal Congress

Dr. Alexis Tlyin, St. Petersburg, Russia 165

Digitized by Google

Digitized by Google

PREFACE

There was held in Chicago, between Sept. 18 and Sept. 30, 1911, the first International Municipal Congress and Exposition. The place of both was the Coliseum. The congress and exposition were made possible through the co-operation with The Chicago Association of Commerce of the City of Chicago, Citizens' Association, Industrial Club, Civic Federation, City Club, United Charities, and Rotary Club.

The Congress assembled experts in every department of municipal activity, and their discussions marked the advance in theory and practice which progressive municipalities are making in charters, accounting, co-operation with voluntary civil and commercial bodies, both of men and women; city planning, paving, lighting, transportation, taxation, municipalization of services, population congestion and improved housing, public schools, control of milk supply, protection of water and disposal of sewage, reduction of fire waste, parks and playgrounds, control of contagion and school inspection, yard sewage, stables and slaughter houses; law's relation to health work, per capita cost of health department, etc.

The Congress was opened Sept. 18 by addresses by Mayor Carter H. Harrison, of Chicago; Mayor John F. Fitzgerald, of Boston; Harry A. Wheeler, president of The Chicago Association of Commerce; John MacVicar, of Des Moines, commissioner general of the Exposition; John M. Ewen, chairman of the Congress and Exposition. There was read to the Congress a letter of greeting from the Rt. Hon. T. Vezey Strong, lord mayor of the city of London, and the Congress was briefly addressed in Spanish by Rogelio E. Pardo, delegate from Costa Rica. In his letter the lord mayor said: "I would say, as representing a very ancient city, of which I am the 722d mayor or lord mayor, that we trust the Congress and Exposition will have far-reaching and useful results, and that we shall watch its progress with deep interest, feeling a certainty that, old though we may be, we have yet much to learn in very many directions in which we can be of benefit to the community around us. If, as is highly probable, your Congress gives us a lead in these matters, we shall neither be too proud nor too reserved to express our obligation and gratitude."

The Congress was so organized in sessions as to group related interests for the discussion of fixed topics. The submission of carefully prepared papers was the rule of procedure. Herewith follow, in formal style and more or less condensed to promote their availability, the papers and debates of the Congress. All can be read with much profit by laymen as well as by municipal specialists.

A feature of the program of the Congress was stereopticon talks on foreign municipal services by William Hudson Harper, who had been commissioned to visit Great Britain and Europe for this purpose by The Chicago Association of Commerce.

WM. REISS,

Vice-President of Local Division and Chairman of Local (Convention Bureau) Committee.

The Chicago Association of Commerce.

Chicago, December 30, 1911.

Digitized by Google

Digitized by Google

First International Municipal Congress and Exposition

Mr. John M. Ewen

Chairman of Congress and Exposition

John M. Ewen, opening the congress, said:

"It has become my pleasant duty to declare the International Municipal Congress and Exposition in session. As chairman of the organization that has prepared this exhibition and this program of addresses and deliberations, I take great pleasure in welcoming the delegates from cities far and wide who have come here to exchange advanced ideas for municipal administration—to teach each other and to learn.

"There can be no question but that municipal advancement forms one of the most important phases of latter-day progress. The insistent and growing demand of the citizens of every community for one hundred cents' worth on the dollar of efficient government in return for the taxes that they pay, has increased many fold the necessity of public officials to seriously and studiously plan and execute their work for the public welfare. No longer does the slipshod city government suffice, but the same careful attention to details of public business is now required of city officials that the head of a great business corporation exacts from those who work for him.

"It is this situation that makes such an event as this International Municipal Congress and Exposition an opportunity for vast benefit to those who govern cities and to those who inhabit cities as well. In fact, I can see how this situation will develop until such conferences as that upon which we are about to embark shall have become a necessity.

"The men and women who have prepared the exhibition in connection with its congress have endeavored to gather together a group of exhibits that will supplement in the highest possible sense the educational value of this congress. No pains have been spared to make the exposition complete and the congress helpful. I now take pleasure in turning over to you for your study these exhibits and the sessions of this assembly, and it is my earnest hope that each delegate may avail himself of the privilege of helping the others, and that all may find ideas here that will help make municipal administration in every country of the world more businesslike, less difficult and so conducted as to embody increasingly each day twentieth century ideals of progress and economy."

Digitized by Google

Mr. John MacVicar

John MacVicar, addressing the congress at its opening session, said:

"The recent United States census shows that during the past ten years Oklahoma City increased in population four hundred per cent, while the State of Oklahoma gained but one hundred per cent; that the city of Des Moines gained 39 per cent, while the State of Iowa lost in population, and that today practically a majority of the people of the United States live in cities and incorporated towns. These are momentous facts; they prove that the government of cities is a vital matter both to the inhabitants of cities and to the millions whose homes are in the country, but who must be ruled for generations to come by the votes of citizens of cities. Yet we keep on digging Panama canals, building railroads of transcontinental proportions, expending the energies of this great nation in determining trade relations with foreign countries; in short, modernizing everything that touches American commerce and industry at home or abroad, while in a large part of our cities we are using wasteful municipal methods as antiquated and unsuited to our times as the stage coach of seventy-five or a hundred years ago.

"The city of Chicago is to be commended, and through it the municipalities of the world are to be benefited in that the Chicago Association of Commerce has turned aside from its study of trade and commerce to give attention to the great problem of governing municipalities, and through this exposition to bring together the municipal undertakings of the old and the new world, to learn by comparison how to improve the business of running our cities.

"I am not of those who go the length of maintaining that cities are merely business corporations and should therefore be governed exactly as if they were business propositions and nothing more. It is true that a city's government is mainly a matter of business, and that a good business administration is a large part of what the people want and have a right to demand at their city halls; but the city government which stops there will fall short of complete success. Municipal government has its political and social side as well as its economic side; and all must be looked after in any permanent solution of the problem of how American cities may be well governed.

"The efforts to eliminate politics from our city governments have, in my judgment, been misdirected. So long as the people are vested with the right of franchise politics will be a factor in our municipal government. It is not politics of itself that we have to fear, but the custom of permitting the victorious party to treat elections as conquests, and to distribute the offices to the party mercenaries as spoils of war. This can and must be eliminated if we are to hope for any real or lasting improvement in the government of our cities.

"I am aware that city elections on other than party lines seem to many good people, particularly of the larger communities, to be impossible, but I believe it to be mere fancy that such elections cannot be intelligently conducted outside of party organization. Let party be eliminated and the basis of reward will be changed from party fealty—that last refuge of the discredited politician—to that of competency and merit; thereby old things will speedily pass away and the day of better things will have come. I am aware that such reforms can scarcely come from the city officials, no matter how earnest they may be; they must come from the people, from an intelligent conception of what is involved in the governing of a municipality, and of what the people are entitled to from their city government.

Digitized by Google

Public Utilities

Problems of Valuation

Bion J. Arnold

In the session devoted to the discussion of public utilities, Bion J. Arnold, chairman of the supervising board of engineers of the city of Chicago, and presiding officer of the section, said: "During the last twenty-five or thirty years the most of the great inventions which have made possible the public utility corporations of to-day came into existence. During the early part of this period inventors were rivaling each other, promoters were doing their best to outwit each other, financiers were doing the best they could to gain in financial profit in promoting various enterprises, or backing different enterprises in order that the financial profit might be realized; so that we might say the first ten years of this period was one of strife on the part of all people interested in the matter—and all were interested in it, inventors, promoters, financiers and the public—they were all interested in the final result.

"During this period franchises were granted to public utility corporations upon easy terms. And perhaps it is well that they were so granted, because the public was desirous of securing the advantages of the public utility corporations, and the public also was without knowledge as to the terms such franchises should be granted upon. And it took some years of experience in the operation under those corporations and under our modern conditions before those facts could be learned.

"The result was that competitive franchises were granted in cities to lighting companies, electric railway companies, to gas companies, to water companies—seldom, however, to water companies, but sometimes—on the theory that competition was the best thing for all concerned, that the greater the competition the lower the cost of production and consequently the lower the cost to the consumer. We have since learned that that meant the duplication of capital in many instances, which has since been consolidated into one large company—usually with a profit to both parties—and the result is that the public is carrying to-day a capitalization upon public utility properties that it never should have been asked to carry, and never would have been, had it not been for this competition principle which was followed at that time. We did the best we knew under the circumstances.

Depreciation

"During the past ten years, however, certain corporations which have been granted those privileges had misused those privileges—I do not say all of them but certain ones had—the resulting overcapitalization and the fixing of rates made the public pay higher than it should. As soon as these conditions became known to the public and the franchises of the original corporations began to lapse, then the day of settlement came. These original promoters of these companies, not having understood what depreciation meant, and furthermore, going upon the theory that when franchises lapsed they would be renewed by the municipalities, and also upon the theory that when it became necessary to rehabilitate the properties, they could issue new securities and additional securities for money to rehabilitate with—I say, going upon those two theories, no allowance was made for depreciation and in many instances not sufficient allowance was made for maintenance—maintenance as distinguished from depreciation, meaning the ordinary upkeep of wear and tear; depreciation meaning the natural wear of the property that must be kept up by maintenance or upkeep, or that wear which comes out of the property, necessitating its being renewed. For instance, a car may be bought to-day. You can buy new brake shoes, new wheels, new seats, new mats for the floor, etc., and keep it running. That is maintnance. But when that car becomes obsolete or completely worn out and has to be renewed with another car, then comes in renewal or depreciation. And the difference between the value of the original car and the value of the new car—we will assume that the new car was substituted at the same value as the old one—you must provide sufficient money to buy a new car with. It is that value that I call renewals or depreciation. I say, no allowance was made for this in the original promotion of these enterprises in many instances; in fact, I know of no instance in this country where that was allowed.

Digitized by Google

What Capitalization May Include

"Now, what is the result? We have found ourselves, when these franchises lapsed, with dilapidated properties and no money to rehabilitate them, and so highly capitalized that the companies could not stand additional securities in many instances. That is the situation that confronts numerous corporations in this country to-day. It confronted more five years ago than it does now.

"In some cities the problem has been met and solved. It has been met and solved in Chicago, in Cleveland, they are endeavoring to solve it in New York, Detroit, Pittsburgh, Seattle and San Francisco.

"There is a fair basis of settlement between the companies and the public. It has taken me about nine years to come to the conclusion as to what that fair basis is in my own mind, and having had more or less to do with these questions between the public and the corporations, first representing one side and then the other, and sometimes both sides of the same case by agreement, I have given it some thought.

"And I have come to this conclusion, that where a corporation has been honestly managed, judiciously managed from the day of its inception to date, notwithstanding the fact that it may have put in horse cars, light rails and had to renew them, so that the fact that it may have paid high prices for consolidation, that it may have put in horse cars, light rails and had to renew them, so that if you go out and look at that property to-day you will find no value for those cars or rails—suppose it paid the promoters a profit, suppose it paid a discount on securities in order to raise the money to float the proposition at this time—I say, all such things as that, obsolescence, discounts on securities, reasonable promoters' profits, legal fees connected with the organization, things of that character which cannot be found to-day in the property if you go out and look at it and make a value upon it—I say, such things as that are rightfully a part of the original cost of the property and should be allowed to stay in the capitalization of the company until the parties who have put their money into the property have had a chance to earn that money out, with a fair return upon it.

"So I say if you take the records of a company from the date it was organized up to date and allowing a fair return—I would say a good, liberal rate of interest upon every dollar that went into the property up to date, deducting from what you allow the difference between what the company actually took out in dividends and what it ought to have received upon this basis, then the difference left over and above the value of the physical property that you find to-day should be allowed to stay in the capitalization until the company can earn it out.

Liberal Return on Real Money

"In other words, if the company is to be regulated now, as it often is in many instances where public service commissions are in vogue, and this public service commission, or the public, says: 'From now on you can earn a fair return upon the real value of your property, or upon some valuation'—in other words, 'You are not going to be allowed to make excessive profits any longer, we are going to regulate you from now on'—I say that under such conditions the company has a right, and has a right to demand, that it be allowed to earn a liberal return upon the real money that was put in from the date that the money went in up to date, and that even from this time on after that rate of return is agreed upon between the public body and the public corporation—call it six per cent. if you choose—that all over and above that six per cent. shall go into an amortization fund to gradually retire the difference between that real value of the property as it exists and this obsolescence, promotion fees, etc., which I have named, so that eventually the property will be paying a return simply upon the value of the physical property performing the service.

"Now, if I make that clear, suppose that a company has $100,000 worth of physical property to-day. Suppose it has shown it has put in $120,000 in real money, that is, on this basis I have figured, say at eight per cent. from the time it went in. There is a difference then of $20,000 that there is nothing to represent at the present. I say, the company is entitled to earn a return upon that $20,000, in addition to the real value of $100,000, at six per cent., we will say, and to continue to earn it upon that, and all that it earns over that six per cent. shall go into a fund to gradually retire the $20,000 I have mentioned, so that finally the property is paying a return simply upon $120,000 worth of property. The best way to do that is gradually to increase the property to the amount of the $20,000 by gradually putting that money into real physical property."

Public Lighting

E. L. Elliott

Mr. Arnold then presented E. L. Elliott, of New York City, editor of the "Illuminating Engineer," who on the subject of "Public Lighting" said: "The commercial

Digitized by Google

advent of illuminating gas about an even century ago marked the beginning of the first epoch in modern lighting. Before this time there was no public lighting in the sense in which we know it today. From this time there was no substantial progress in the production of light for more than half a century, when the development of means of producing electricity by mechanical power made possible the production of light by means of the electric current; and the commercial perfection of the carbon arc and carbon filament incandescent lamp speedily followed. Coincidently with the development of the electric lamp came the no less remarkable discoveries by Dr. Auer von Welsbach, which took practical form in the shape of the incandescent gas mantle universally known by his name, which has revolutionized gas lighting. This period marks the second epoch in the progress of modern illumination.

"Discovery then halted for a quarter of a century, when there was a simultaneous announcement of radical improvements all along the line. New forms of electric lamps of both the arc and incandescent type were introduced which represented a gain of from two to five times in efficiency over the older forms, and one entirely new electric lamp was discovered, in which the vapor of mercury was used as the radiant. These new lamps, which included the so-called flaming and magnetite arcs, and the metal filament incandescent lamp, marked the third epoch in modern illumination, of which we are now just at the beginning.

Evolution of Lighting

"The electric arc was such an absolutely new and astonishing source of light at the time of its first introduction that it dazzled the people into committing many absurdities in its use, the most conspicuous examples of which were in public lighting. The open arc, which was the original lamp used for this purpose, radiated its large volume of light from a surface of not more than half of a square inch in area, which practically amounted to a point, and was hence of the most intensely dazzling brightness. On account of the small area of the source the shadows cast were so sharp and so dense as to make it impossible in many cases to distinguish between shadow and object, while the dazzling brilliancy of the light made it impossible to see objects beyond it. The electric arc was not only more brilliant, but produced a far greater quantity of light than any device previously discovered, and in the admiration for this magnificence the fact was at first lost sight of that the very elements of magnificence were for many purposes the light's worst fault. It was too brilliant and too great for ordinary conditions of indoor use, but out in the open it would seem that there was no such thing as getting too much light, hence the use of arcs in street illumination. With all its faults, however, the use of the electric arc in public lighting represented the beginning of a new era.

"With the new light-sources which have come forward within the past half dozen years the necessity for giving greater attention to the methods of utilizing light, so as to produce the best effects in illumination, has steadily increased; and with the greater demand has come a greater knowledge of the ways and means of accomplishing this result. So great has been the study in this line that it has given rise to a new branch of applied science and a new profession—illuminating engineering. Public lighting to-day is not the simple problem of putting up as many gas lamp posts as the public funds will admit, but of considering the various conditions and requirements of illumination, and selecting the best illuminant and accessory to meet these requirements. In contracting for the heating apparatus for a building the purchaser does not specify that a certain amount of heat be generated at the furnace, but that the temperature of each room shall not fall below a certain amount in any conditions of weather. There is logical analogy between heating and lighting, and it is just beginning to be understood that to contract merely for the production of a certain amount of light—or still more indefinitely, the use of a certain number of lamps—may come very far from affording the measure of illumination expected. So far as practicable in the present state of the art the quality and quantity of illumination should be specified in contracts for public lighting.

Early Arc-Lamp as Art Offender

"Besides committing many sins against the laws of illumination, the electric arc in its early form and manner of use was an atrocious sinner against the principles of art. The old gas lamp post was, even in its simplest form, at least inoffensive, and in its later forms, as represented by millions of posts still in use, had some pretensions to decorative quality. The arc lamp, suspended by a cable over the middle of the street, or from a gas pipe mast-arm attached to a wooden pole, is hopelessly ugly; yet thousands of these atrocities disfigured the streets by day which they villainously lighted by night. This condition was somewhat ameliorated by the introduction of the enclosed arc lamp, which was more than shapely in itself, and was generally better placed—i. e., on posts having some consideration for appearance.

Digitized by Google

"Simultaneously with the advancement of science as applied to architecture and engineering, and the decadence of pioneering, there has been a growing feeling on the part of Americans toward a greater appreciation and use of the beautiful. The several international expositions, beginning with the Centennial exposition of 1876, have been extremely valuable object lessons in this regard. The Columbian exposition held in this city was undoubtedly the most far-reaching in stimulating appreciation for civic art. But if the thing itself could not continue, at least the examples set could be followed. There was one young man, at that time interested in the commercial end of public lighting, who was gifted with prophetic vision, and who forsaw and predicted the general use of the ideas of lighting that made the exposition memorable. This was Mr. Henry L. Doherty, who has had the felicity of seeing his prophecy come true.

"With the increasing demand for the 'city beautiful,' the inherent ugliness of the old forms of illumination have naturally come to the fore. The decorative possibilities of puplic lighting were first systematically and definitely put into practice in Los Angeles, Cal. In place of the glaring arc the comparatively mild incandescent lamp was used; in place of the tall and awkward pole standards with handsome architectural decoration were employed; and in place of the single light-source at long distances apart the standards were equipped with five lamps each and set relatively close together. A diffusing globe which entirely hid the form of the light-source completed the harmony of artistic effect, as well as putting the finishing touch upon the quality of illumination produced.

Business Interests Wanted Better Lighting at Once

"'But how about the expense?' was the general inquiry, prompted by the taxpayers' instinct for economy in public expenditures. Of course, such a system was more expensive than the old methods; so is an asphalt pavement more expensive than cobble-stones, and marble or granite buildings more costly than brick or frame structures. But we do not hesitate to put down such pavements nor to erect mammoth buildings of these materials; why stop at an expenditure of money for lighting which is in keeping with these modern civic improvements? The logic was plain enough to appeal to the business man, who realizes that his own prosperity is inseparably connected with the prosperity of his city, and that prosperity is largely judged by appearances. The example set by Los Angeles was soon followed by other municipalities, and spread from city to city and town to town until it seemed as though the whole country had suddenly awakened in the dark and cried out for more light.

"The movement for better public lighting, particularly in its artistic features, has been characterized by one noteworthy phenomenon. While public lighting is naturally a function of municipal government, the demand for improvement in this facility grew so rapidly that it could not wait to develop through the regular stages of political growth. The business interests wanted it, and wanted it at once; and knowing that there was but one way to have this desire gratified they cheerfully went down into their own pockets and supplied the essential for the immediate execution of their plans. In almost all cases the new decorative public lighting has been carried out wholly or in large part at private expense. There is an inate love of the beautiful in every human being, and no greater mistake can be made than to assume that those in the lower walks of life, not excepting even 'the submerged tenth,' are exceptions to this rule. In the so-called slum district of the lower east side of New York the breakage of the old fashioned gas lanterns were excessive, due chiefly to their being used as targets by the street gamins of the section. When the so-called boulevard globe came in, i. e., the blown glass cylinder, which was mounted in a much handsomer frame work, it was found that the breakage fell off 80 per cent., which could be attributed to no other cause than the natural instinct to preserve that which appealed to the sense of beauty. As a matter of fact, the 'city beautiful' is much more for those who cannot have beauty in their homes than for those who can enjoy it either at home or abroad. There is nothing than can make a stronger appeal to the civic pride among all classes than to beautify the city by means of light.

Classification of Public Lighting

"Light is a positive influence for uplift, as well as a most efficient physical preventive of crime.

"Public lighting may be divided into five classes:

"1. The central business section, including public squares and open spaces in or contiguous to it;

"2. Business thoroughfares immediately adjacent and tributary to the central business section, and secondary business sections in outlying sections:

"3. Residence streets fully developed;

"4. Suburban streets more or less undeveloped;

"5. Public parks.

Digitized by Google

"The central business section demand a high intensity and approximate uniformity of illumination on the pavement, which may be secured by the use of either a large number of small units, such as tungsten electric lamps or modern inverted gas lamps, or by the new arc lamps of high candle-power of either the flaming or metallic arc type. In making the choice both economy and appearance must be considered. As to the former viewpoint the flaming arc undoubtedly has the lead, especially if the long burning lamp of this type, which is just being tried out on a commercial scale, proves successful, as now seems probable. The flaming arc is the most efficient converter of electric energy into light, as well as the most powerful single unit yet developed. The only serious handicap which the lamp has experienced has been its short life. If this is successfully overcome, as there is good reason to hope, the lamp will unquestionably stand first in point of general efficiency. As commonly used the flaming arc gives a light of a distinctly ruddy color, which produces a considerable distortion in color values, noticeable in the peculiar pallor which it produces on the countenance. This is somewhat objectionable, but is easily overcome; it is a simple matter to produce a practically pure white light by the proper selection of chemicals in the electrodes. For physiological reasons, however, white light is less efficient than yellow, and the efficiency of the flaming arc is reduced considerably by the use of such carbons. Both the intensity of the light and the distribution of the rays require lamps of this type to be placed much higher above the pavement than other forms of lamp, the height ranging from 30 to 60 feet.

Relative Values

"The other choice in electric arcs, the magnetite, or 'luminous arc,' gives a bluish-white light of dazzling brilliancy. It has practically about half the efficiency as a light producer of the flaming arc, but a much longer life. On account of this latter quality it has come more generally into use for public lighting. The larger part of the light is given out slightly below the horizontal, which necessitates the lamps being hung lower than the flaming arc. In point of illumination results this form of lamp has one serious fault—its intense glare. This could be greatly mitigated by the use of a large globe of diffusing glass. In actual practice thus far this has seldom been done, the lamps being commonly installed with a clear globe, and as a result the glare is so intense as to seriously interfere with vision. Such practice is regrettable, being a return to the garish effects of the old open arc, in whose final disappearance we had good reason to rejoice. The reason for this practice with the magnetite arc can undoubtedly be found in considerations of economy. Opal glass, which has been the only practical diffusing glass for outdoor use on account of its ease of cleaning, absorbs blue light much more readily than yellow and red, and as the light of the magnetite lamp contains a comparatively large proportion of blue rays the reduction in efficiency by such a globe would be very material; whereas in the case of the flaming arc lamp, the light of which contains a minimum of blue rays, an opal globe is used with comparatively little reduction in efficiency. The same holds true with the tungsten lamp, whose light is relatively rich in yellow rays.

Determining Factors of Lighting Policy

"In point of economy, then, the three different electric lamps would arrange themselves in the following order: Yellow flaming arc, white flaming arc, magnetite arc, and tungsten lamp. If the magnetite lamps are equipped with the proper diffusing globes they would not have a long lead over the tungsten lamp.

"In point of appearance the width of the street and the character of the open spaces must be duly considered. The height of the lamp post should bear a just relation to the width of the street. Low lamp posts tend to flatten out a street, and hence are better suited to streets of moderate or narrow width, while unusually wide streets are set off to better advantage by correspondingly higher posts or poles. The latter principle also applies to open squares in which high posts undoubtedly are to be preferred. Another method of lighting, which was used to some extent in the beginning of the decorative lighting movement, consisted in the use of arches or festoons of incandescent lamps over the roadway. This system is unsatisfactory from both the practical and artistic standpoints, and has rightly been discarded.

"In order to secure the requisite brilliancy for this class of lighting, carbon arc lamps have been commonly installed two to a post. Fifth avenue, New York, perhaps offers the best example of this method, although other examples are common. In the desire to 'turn night into day' the mistake has been made in some cities of treating the flaming arc or the magnetite lamp in the same manner. In the former case the result has been garish and overdone, the illumination on the sidewalk being so intense as to seriously interfere with the much more artistic lighting of the merchant's show-windows. The same is true to a somewhat less extent of the similar installations of the magnetite arc, with the additional aggravation of its glare. Both of these types of

Digitized by Google

lamps are too powerful light-producers to be used in pairs or clusters, the only possible exception being the public square in which the lamps could be placed very high and where additional poles would be in the way of traffic.

In Business Sections

"For the central business section, then, considerations of both utility and esthetics would indicate the use of the flaming arc, preferably with white light carbons, or the magnetite arc equipped with a diffusing globe for streets of unusual width and open squares, and posts containing clusters of tungsten lamps in diffusing globes for other streets.

"For secondary business section lighting the tungsten lamp is undoubtedly the best electric unit at the present time. In efficiency of the illumination produced this type of lamp is at least equal to the enclosed carbon arc, which has heretofore been the mainstay of public lighting by electricity, and possesses the advantage of being available in smaller units. Illumination alone considered, the lamps should be used singly on posts set relatively close together, as by this arrangement the most nearly uniform intensity is obtained. In practice, however, this is limited to a certain extent by the additional cost of installation and maintenance. From the decorative standpoint, also, the post containing a cluster of lamps can be given a more artistic treatment and produce a somewhat more decorative effect when the lamps are lighted. For the secondary business section, then, the tungsten lamp used generally in clusters on ornamental posts is the preferred practice.

In Residence Sections

"The conditions in residence streets are quite different from those in the business sections. Street traffic is comparatively light, hence there is no necessity for as great a degree of general illumination on the pavement. In fact, anything approaching uniformity of illumination is not to be expected. Trees are frequently to be found along the curb, which introduces the problem of shadows often to a very perplexing degree; and whereas the illumination of the fronts of the buildings is desirable in the business section, it is distinctly undesirable in the residence section. These conditions demand the use of a comparatively small unit placed low, and as near together as compatible with a reasonable respect for economy. Of electric units the tungsten lamp is the only one to be considered for this purpose, and for economy's sake it should be installed singly on posts placed along the curb.

"Much effort has been expended within recent years to devise a means of utilizing the light which is given out crosswise to the street, which is often a positive nuisance to the residents from shining into windows, so as to make it available for the illumination of the pavement. Two types of accessory for this purpose have been devised, one consisting of a prismatic glass covering having the prisms so calculated as to direct the side light lengthwise on the street, an effect which it accomplishes to a very considerable degree. The great difficulty with this accessory is the collection of dust and soil on the surface of the glass, rendering frequent cleaning necessary, which is made more difficult by the ribs on the glass. A more recent device is a reflector consisting of two half-parabolas placed with their truncated ends joining, the lower section being cut away. This apparatus is made of enameled sheet steel, which reduces the cleaning troubles to a minimum. The gain in effective illumination is marked, and the apparatus is well worth a careful investigation.

In Outlying Districts

"Street illumination in outlying, undeveloped streets properly so-called, cannot be attempted in this class, i. e., the lighting up of the entire pavement so that it can be readily seen. The best that can be done is the use of what has been termed 'beacon' lighting, i. e., the use of a sufficient number of light-sources to clearly mark out the course of the thoroughfare. The old practice of placing arc lamps at very long distances apart was in every way a mistake. The intervening space was left in practical darkness, which was rendered absolutely obscure, so far as vision is concerned, by the glare of the source. No matter how far apart it may be necessary to place the lamps for reasons of economy, the smaller units distributed along both sides of the street are preferable from every consideration. Even the ordinary carbon incandescent lamp sparcely distributed serves to show the course of the roadway fairly well; and if illumination is needed, as for reading an address on a card, it can be obtained in the immediate vicinity of a lamp. The tungsten lamp with practically three times the efficiency affords a means of increasing the number of light-sources proportionately at the same cost, or of equalling the former installations at one-third of the cost for current. This fact, taken in connection with the cheapness with which such a system can be installed,

Digitized by Google

ordinary wooden poles serving both for stringing the wires and supporting the lamps, renders possible the extension of street lighting far beyond the limits of the city.

Lighting of Parks

"The old conception of a public park as a show place for wealth and fashion has been superseded by the conviction that its most important function is to serve as a play-ground and breathing space for the inhabitants of the more congested sections of the city, whose work or duties keep them indoors not only for the greater part of the day but continuously throughout the year. Perhaps the largest use of parks under these conditions takes place in the evening, the only leisure time of the working class except holidays and Sundays. In order to have the park fulfill its purpose to the full, therefore, adequate artificial illumination must be provided. If there is any doubt as to the value of good illumination for parks it will be removed by considering the private recreation parks existing in almost all cities, which are maintained by the street railroads. Not only are such parks illuminated so as to facilitate their use, but decorative and spectacular effects are utilized in the highest degree.

"Coney Island, New York, the most famous play-ground in the world, likewise presents the most magnificent spectacle in illumination in the world. If parks are to be used at night as recreation places for all classes and all ages, they must be kept clean and safe by a liberal use of light. The presence of trees and shrubbery with their necessary shadows afford abundant opportunities for the commission of acts of violence and immorality which no amount of police vigilance can prevent unless there is an abundance of light. While the cost should be made as low as possible consistent with the objects to be attained it is not to be considered otherwise. A park must either be lighted up at night or its gates closed if it is to be of any use to honest and decent people at night.

Tungsten Lamp in Park Lighting

"For the general lighting of parks the tungsten lamp is the most serviceable unit. By a judicious placing of lamps of moderate size on posts high enough to be well out of reach, it is possible to illuminate a park even in the presence of abundant trees and shrubbery so as to make it as safe and as easy of use at night as the streets. By the use of flexible electric conduits such lamps can be intalled at a minimum of expense and disturbance to the landscaping, the conduit being laid in a single furrow or shallow trench, and the necessary electrical fittings locked in the base of the post. It is best in all cases to use a diffusing globe with the lamp, which much more than compensates for any absolute loss of light by the increased facility of vision, especially the ability to see past the lamps.

"For large open spaces in parks the same directions apply as in the business section, the new arc lamps being most serviceable. In fact, there is no reason why the special play-grounds should not be illuminated so as to permit of games being carried on by night as well as by day. Baseball has been successfully played at night in Chicago, as well as other cities, and even military maneuvers exhibited by the artificial lighting of the field. This is a matter that may well be seriously considered by both civic authorities and the social organizations working for the betterment of the working classes.

Europe Makes Good Use of Gas

"In reviewing the various conditions of public lighting and suggesting methods of meeting them we have thus far considered electric lamps only. Electricity comes in for a larger share of our attention chiefly for the reason that there is a greater variety of electric lamps available for public lighting, and the new forms that have come into use within the past few years have superseded all the older forms in efficiency, and are hence destined to likewise supersede them in use. There are doubtless at least as many miles of city streets, and probably more, illuminated with gas at the present time than by electricity; since the first commercial use of electric light in this country it has been steadily gaining on gas for public lighting. This applies, however, only to America. In Europe gas is still the more largely used, and recent improvements in gas lamps have enabled them to successfully compete with even the more powerful and efficient of electric arcs.

Where a small unit is preferable the Welsbach lamp as adapted to street lighting is an efficient and entirely satisfactory unit. Improvements in mantle manufacture by which the life of the mantle, as well as its strength, is greatly increased, and its light-giving power maintained practically without diminution throughout its entire life, will add materially to the usefulness of this method of illumination. Where there are gas mains on the street there is no necessity for electric lighting. The inverted mantle burner, a recent invention which is superseding the older upright form, affords some

Digitized by Google

advantages for street lighting, though perhaps not to such a great extent as for interior lighting, owing to the fact that the distribution of light is more concentrated about the space underneath the lamp where the illumination in any case is unnecessarily brilliant. On the other hand, the lamp is somewhat easier and cheaper to maintain.

High Pressure Gas Lighting Backward in United States

"Lamps using gas at a much higher pressure than ordinarily supplied give an enormously increased efficiency, and are also capable of producing a very large volume of light. This system has come into extensive use in Europe, Berlin in particular using it to a far greater extent than electricity, a circumstance which may perhaps be attributed partly to the fact that the gas works are owned by the municipality. America has been slow to take up high pressure gas lighting, there being no practical installations of such lamps at present in this country. Some of the larger companies, however, are now experimenting along this line, and it is possible that the system may be introduced. So far as operating conditions are concerned, there is no effect producible by electric light that cannot be duplicated by gas light. It happens that commercial conditions have been such in this country as to promote the use of electricity for public lighting, and these conditions seem likely to continue the growth of its use.

"The installation of decorative street lighting systems by private enterprise has in some cases led to unfortunate results from the artistic standpoint by way of lack of uniformity. The merchants of a certain block or small section would join together to illuminate their quarter, and make their own selection of posts. The merchants in an adjoining section would follow, but would use a different style of post. While such cases have not been numerous, there have been enough examples to direct attention to the importance of some control over public lighting installations which would insure uniformity of design. The practice prevailing in many cities of referring all public works having an artistic side to some non-political art commission is to be commended. Every lamp post used in New York City is approved by the Municipal National Art commission, and the practice should be followed in all other cases."

Engineering Progress

H. M. Byllesby

H. M. Byllesby, of H. M. Byllesby & Company, electrical engineers, Chicago, and president of the Civic Federation of Chicago, discussing the subject of "Public Utilities," said: "In the brief period of from thirty to thirty-four years, the profession of electrical engineering as applied to the generation of, the transportation of and the utilization of large quantities of electricity has come into existence. In the broadest sense of the term this development has required the creation of a new art. From th electrical generators of the Commonwealth-Edison Company, of Chicago, which are furnishing the light and much of the stationary power, and the bulk of the power for the movement of intramural transportation of our great city, with a capacity of 20,000 H. P. per generator, to the generator of thirty or thirty-four years ago with a capacity of 50 H. P. is a far cry and a long distance. The electrical transmission systems of thirty years ago comprised at best a few miles for supplying arc lamps and maximum ditances of about a mile used in the infant industry of lighting by incandescent lamps. To-day, transmission lines of over 200 miles are not uncommon.

"At the birth of our profession probably the largest steam engine did not exceed an indicated capacity of 2,000 to 2,500 H. P. and engines of that capacity were extremely rare and confined almost to slow moving pumping operations. To-day we have reciprocating engines driving electrical generators of 10,000 H. P. capacity and steam turbines driving electrical generators of 30,000 H. P. It is probable that thirty years ago there was no water wheel in existence which developed substantially more than 500 H. P. To-day water wheels are in operation developing upwards of 15,000 H. P. for the purpose of driving electrical generating machinery.

Rapid Retirement of Obsolescent

"Along with the achievements of our profession and taking its inspiration therefrom, and being forced thereto by our demands, has been a contemporaneous development of machine shop practice and machine tools. To-day there is a condition of accuracy, a necessity of working to microscopic measurements and a machine shop practice which did not exist before we required it and which I believe would not have existed today excepting to fulfill our exacting needs. Likewise the foundry of to-day is producing steel and iron and bronze castings in quality, in size and in accuracy—all forced upon them by the advances of the electrical engineers' profession. The entire

Digitized by Google

practice of hydraulic engineering, if not revolutionized, has been thrown forward by leaps and bounds by the requirements of the electrical engineers in the useful development of waterpowers for the purpose of generating electricity.

"Along with this has gone the scientific and painstaking study of rainfall, of runoff, of careful detail investigation of natural precipitation through rain and snow fall, the action of ice in its various forms, the action of melting snow and the control, as far as humanly possible, and on a wider scale than ever dreamed of in the past, of the titanic forces of nature in swollen streams, floods and cloudbursts. Storing water in reservoirs for the purpose of utilizing the store of flood water at low water periods of the stream and the development of the reservoir on a scale heretofore unheard of have all been ancillary to the brains, the genius, the achievements of the men of our profession. The development of electric engineering has been a continued series of advances, step by step and leap by leap. There has been more obsolescence and more retirement of electrical machinery and tools and devices far in advance of their natural life, due to the continuing improvement, than has taken place in the history of or the development of any other art. The duties of the electrical engineer have been more eclectic, and I believe more exacting than those of any other profession.

Capital Backs Invention

"No new industry can be established or when established can continue and no art can grow to the dimensions of ours without the continued presence of the individual who supplies the capital, the money, the financial resources to the inventor and the engineer. Large and continuing supplies of capital are required for research, for producing inventions, for the carrying out of the inventions and the development through their period of incipiency, of temporary failures and disappointments. It is probable that thirty-four years ago there was not to exceed $1,000,000 invested in every feature and part of this art, and to-day, taking the entire civilized world, and in the absence of statistics, I believe that several billions of dollars would be short of the amount of capital invested in manufacturing plants, in generating stations, distribution systems, water powers, trolley roads, motors and subsidiary details employed in the business which has been produced by electrical engineers and the promoter and capitalist working hand in hand and together during approximately a generation.

"Our profession has indeed been fortunate in having had associated with it from its inception men who were sufficiently intelligent, courageous and far-sighted to see the merit of the inventions and developments which from time to time were produced and who had withal the faith and the ability to continue to stand behind these inventions and developments with their capital during that period which we all know has taken place, when these inventions and these developments were under criticism, temporary failure and while only disappointing results were being reached. During this period of disappointment of hazard, during this period of modifications from the original plans and disappointments and changes, the man or corporation with money was present to tide the infant invention or industry over the shoals and hazards which surrounded it, and except for the presence of men of the type of which I am speaking, with their courage, their faith, and their capital, many of the inventions and developments of our profession would have been buried in the grave of permanently disappointed hopes and non-fulfillment.

Issuance of Franchises

"To-day there is a world of discussion regarding the value of a franchise, the terms of a franchise, the privileges it affords, the obligations it carries and the fraud which in the minds of the public is supposed to be always inseparably connected with anything bearing that name. There is much comment, nearly always unfavorable, regarding the conditions under which franchises for electric light, trolley roads and power transmission companies have been issued. If those who, probably with the best intentions possible, are criticising these matters had gone through the experience of the earlier days, they would change their opinions. In those days franchises were given freely. Any one who applied for a franchise would receive it and as a rule, without burdensome restrictions. The community which was favored by having capital build for its service an electric light plant to furnish what they believed to be a luxury and which otherwise they would not have had, or a community which was favored by a company who in return for a franchise would spend the money necessary to change the cruel and totally inadequate intramural animal transportation of that town or city to an electric transportation system, was properly and deservedly welcome. The only feeling on the part of the citizens of that community or the governing body issuing that franchise was one of thankfulness that the electric light or trolley line was to be given them and one of pity for the individual or corporation who was so foolish as to invest capital in such hazardous enterprise. The same remarks apply to the development of water powers.

Digitized by Google

Excellence of American Utility Plants

"This enterprise and courage which heretofore has been wisely fostered by the commonwealth has given the United States of America the most universally extended, the best operated public utility plants in the world. In the vast majority of cases the service rendered by the corporations is furnished to the public—with superior service with its wide extensions—at less cost than in any other country. Various contributing causes have produced this result. Among these causes has been the natural inherent courage and enterprise of the American. In addition to this, however, have been the liberal franchise grants issued in the past and the freedom from onerous restrictions both for occupancy of streets and the purchase and development of water powers. A broad and liberal construction which has justified the issuance of stock which would eventually pay to the projectors and developers of these enterprises when they became successful something in addition and beyond a mere fair interest return on their investment has also had a profound influence upon giving to our country the best utility corporations of the world. Without these features this development with its low charge to the public could not have taken place. Due to these features it has taken place.

Liberal Policies Toward Corporations

"Throughout the older settled sections of our country scarcely a hamlet is without electricity for lighting and power, and large sections of our farming and ranching lands are equally supplied. Due to the liberal policies in the past which allowed a reward to recompense the hazards and the courage when such hazard and courage had passed its period of financial loss, we have as a result in this country steam railroads, telegraph lines, telephone lines, electric and gas service in excellence of service, the extent of the service, and the price charged for such service are not equalled in the world. These broad and fair policies in the past have justified the public service corporations in extending their operations, properly expecting as a result of employing additional capital and as a compensation for the risks incurred in pledging its credit and the credit of the individuals behind these corporations, to receive an accruing profit when their enterprise and courage had been justified by results, the companies uniformly lowering from time to time the charge made for their service. No fault was found with the increasing returns upon the capital invested for the purposes and under the circumstances set forth, if at the same time the rates for service, which were already fair as compared with any other country, were being lowered.

"In this way communities throughout our country are to-day served with public utility commodities at an actual loss to the companies serving them. These communities pay no more for the commodity of the public service corporation than the thickly settled communities, the companies operating this service having been heretofore justified in providing the capital and extending their plants into non-productive fields, standing the immediate loss resulting from this policy in consideration of an ultimate profit when their brains and energy and courage had been justified (if it was justified) by the upbuilding of these communities and the properly resulting profits then accruing. Bear in mind as previously stated that in the entire history of public service corporations in this country there has been heretofore a continuing lowering of the price charged for the commodity or service rendered to the public with the sole exception of the trolley roads, which started with a price to the public for service rendered which could not possibly be lowered and it is believed in many cases cannot be continued.

A Day of Protection and Regulation

"Abuses have taken place in the past on the part of the corporations, on the part of the public served by the corporations and on the part of the legislative and law administering bodies. At the present time my opinion is that both the public and corporation are reaching a common meeting ground, requiring public service corporations to be protected and regulated monopolies; these corporations to be governed as to their rates and to be protected from competition by so-called 'public service commissions.' With this doctrine as such, the public service engineer and operator has no quarrel. We do file a plea, however, that these public service commissions be composed of men of character, men of ability, men who have accomplished something in the world; that these commissions be composed of men who while fair and upright are conversant with the business which, under the laws governing their action, they are controlling.

"The abuses which have undoubtedly taken place in the dealings between the municipal bodies and the public service corporations have been as distasteful to the corporations as to the public, and the cry of the corporations is for a fair hearing, for an intelligent hearing, for fair recognition of the benefits they have conferred and a demand to be relieved from the hardships which in many cases they have suffered from partly educated public sentiment. It is believed that properly constituted public

Digitized by Google

service commissions, appointed for 'good behavior,' composed of high-class men, suitably paid and operating under broad and liberal laws, will accomplish this much-to-be-desired object."

W. D. Norton

Mr. Arnold, chairman of the section discussing public utilities, then presented W. D. Norton, formerly assistant secretary of the Public Service Commission of the State of New York for the first district, who happened to be present at the conference. Mr. Arnold remarked: "The commission is doing excellent work in New York, as you all know, having charge of the public utility corporations of the city of New York and having under it the most gigantic financial proposition, I think, in public service in the world."

Said Mr. Norton: "In speaking about the Public Service commission for the first district of New York City, I would like to explain an error which I find is very often in the minds of people who are not exactly familiar with the situation there. The Public Service commission for the first district in New York has jurisdiction over the city proper, whereas the second district has the jurisdiction over the remaining portion of the State. The duties of the first district commission are not only those of regulation but they involve the specific engineering duties of a rapid transit commission, which builds and controls the operation of subways in New York City. This function of the commission came to it from the old board of rapid transit commissioners. This was a very large body which had an engineering force of some five hundred men and an annual budget of about $800,000 which was expended entirely in rapid transit engineering.

"A great many of us have often heard of the New York commission referred to as the 'Million Dollar Commission.' In other states—in Maryland, in New Jersey, in Connecticut, in Massachusetts, in Ohio—when the subject of public service commissions came before the people, it was often urged that public service regulation was a matter which was too expensive for the ordinary state, and the expenses of the commission in New York City were quoted as the example of that expense. I want to point out at this point just what the expense of that commission consisted in and how it got the reputation of being a million dollar commission.

"Its duties consist of rapid transit engineering and public service regulation, and it fell heir to an engineering force of five hundred men, with an annual budget of $800,000. After four years of operation as a public service commission and also as a rapid transit engineering commission, its budget has increased to a little over a million dollars, which is less than the average increase of the old rapid transit commission. Therefore the state of New York to-day is getting about $300,000 worth of public service regulation at a cost which would not have exceeded the cost of the old rapid transit engineering board if that body had been continued. I think this explains how it got the name of a million dollar commission. I am always glad to have the opportunity to in a way do my part to explain this expenditure.

Control of Stock and Bond Issues

"The ordinary public service corporation in New York state must incorporate and that function is entirely outside the commission. In addition to this, it must acquire from the local authorities a franchise to do business. And here again the commission does not enter in. But before that franchise can be exercised the corporation must secure a permit of convenience and necessity from the commission. And it is at that point that the functions of the commission begin in relation to any public service corporation.

"After it has been found necessary for a corporation to exercise its franchise and such a permit has been granted by the commission of the first district—if the corporation is doing business entirely in New York City, and by the second district if it is doing business in the remaining part of the state, or in all of the state—then comes the question of stock and bond issue. Here the commission has full powers to regulate and control all stock and bond issues. The value of this approval, after four years' operation in New York City, is becoming more and more apparent. No New York state stocks or bonds are advertised to-day without the very large display of the fact that these bonds or these stocks are approved by the Public Service commission, and instead of being a disadvantage to the company, this approval although it has been strictly enforced is of great advantage to a company in financing its improvements.

"Now, in order that in future the financial accounts of the companies may be in control of the commission, very early in 1907 a system of uniform accounts for street railway, gas and electric light corporations was promulgated by the commission. This is very largely in accord with the uniform accounts of the different associations of railway, gas and electric companies, and is very nearly like the uniform accounts in the

Digitized by Google

other states. So that it is now possible for the first time to compare the actual results that are being obtained by various companies, not only with each other but with companies in other states.

Filing of Reports and Schedules

"In addition to this, the commission requires of the companies annual and quarterly reports. These are sworn to by the proper financial officer of the company, and give an exact record of the books of the companies, kept in accordance with the uniform accounting system. These reports are made promptly and are fully public so that any one interested in the actual condition of any public service company in New York state can get the actual and full information.

"In addition to this the commission requires the full filing of all schedules. This work is very similar to the Interstate Commerce commission's work, and it has been extended to cover the rates of electric companies, so that any consumer of electricity in New York City can go to the office of any of the companies, or to the commission, and find a complete list of all the rates that are available. This has practically done away with discrimination. In addition to the filing of rates, the commission has complete jurisdiction, upon complaint being made to it, to investigate the subject of proper and reasonable rates, and it has already given down two rate decisions affecting gas and electric companies.

Complete Control of Street Car Service

"One of the most important features of the work of the commission is its control over street car service. This involves a complete control of the service—the ordinary transportation service, in the city, reports of expenses, investigation of the causes of accidents, and the proper reports at the end of each year giving the results. The commission also has full control over mergers and consolidations, although no consolidations or mergers have been advanced during the present life of the commission.

"I may add in closing these very informal remarks that there has been some criticism in New York City as to the work of the commission. This is mostly on account of its supposed cost, which I have attempted to explain. Last February Governor Dix appointed a special commissioner to investigate this phase of the criticism against the commission, and I am glad to say that one of the last pieces of work I did in the commission was to prepare the information for the commissioner who investigated the work of the commission which resulted in his absolute approval of the work of the commission. He pointed out that the difficulties were immense, but that the work had been done successfully and the results, if a little time was given, would be exceedingly valuable both to the people of the state and in another way to the corporations themselves." (Applause.)

Classes of Value

In the debate between the chair and delegates the following points were made:

Mr. Arnold: "In the valuation of a public service corporation a liberal return should be allowed upon actual cash put in by men who took the chance of failure in the pioneer period of the business, and this return should cover even obsolete equipment. There are certain kinds of corporations that have a going value. I do not think a street railroad corporation has any going value. I think a gas plant, lighting plant, or any plant of that character that goes out and solicits business, as you have stated, has a certain going value. But a street railway that depends entirely upon its existence on a public franchise, with no effort on its part to secure business, has not such value. The public makes it possible for that company to secure business. And under these conditions I do not see that the street railroad company can contend for a going value. But it can legitimately contend for early losses, obsolescence and things of that character.

"I think any principle which will be followed out, creating a middle ground and a fair ground between the corporation and the public, ought to be agreed upon because it gives a man his money and a liberal profit, and it does not make the public pay a return upon a fictitious value in the future after the utility has become a stable article, like a security which is protected by government bonds. The corporation should be satisfied with a lower rate of return after it is an absolute guaranteed monopoly, regulated monopoly—it should take even a lower rate of return upon its property after it has had a chance to recoup itself and come out with a liberal profit for the past."

Digitized by Google

Said Councillor William Huntley Buist:

Private Corporations Publicly Regulated

"Do you not feel, Mr. Chairman, that public utilities are far better in the hands of public corporations than in the hands of private corporations?"

Chairman Arnold: "I would not say that they all are. I would say there might be specific cases where that is true, but in the condition in our country to-day we believe, many of us, or a great many people at any rate—most people, I think, in this country believe that they get better results from privately managed corporations publicly regulated. Now, if we can get just the same efficient management in the publicly managed corporation, of course we get a better result, for we would not be paying any profit. But we offer something more than a simple legal rate of return, you might say, upon the capital, to the privately owned corporation manager in order to induce him to manage the thing efficiently. A great many in this country to-day think that you cannot induce the kind of talent necessary properly to manage these great corporations unless you pay them something more than the five per cent. rate upon the real money invested, something more than a salary.

"So in our city here in Chicago we have adopted the policy in our street railway systems of paying to the company, or rather of allowing the company to make its operating expenses; it sets aside first six per cent. of the gross receipts for maintenance and must put it into the property—not less than six per cent. and as much more as the board of engineers say it must put into the property properly to maintain it. Then it sets aside eight per cent. of the gross receipts monthly into a separate fund to take care of depreciation and as much more as this board of engineers says that it must from time to time set aside to take care of depreciation. We have not been running long enough to find out what this depreciation is, but at any rate up to date there is not less than fourteen per cent. of the gross receipts that go in toward upkeep of the property. It may be more. We cannot tell exactly, but it is never less than fourteen per cent.

Chicago's Relation to Part of Its Street Railway

"Now then, having taken care of the operation, maintenance and depreciation, what is left is expended as follows: First comes out of that net five per cent. to the companies upon the actual value of the properties as determined by previous valuation, established prior to the passing of the present ordinances, which was an even fifty million dollars to the two great companies at that time in existence, and has since been increased some twelve million dollars more by the taking in of other companies. Then to that—we will say sixty million dollars—we have added about fifty million more in real cash since under the direction of the board of engineers appointed by the city and the companies and a third man representing both parties or neither, as you choose. Five per cent. we have taken of these expenses, I say, for operation, maintenance, depreciation and taxes. Then out of what is left comes five per cent. to the companies, upon the real value of the property, namely, the fifty million dollars plus the additions—the additions having been made under public regulation, under a board, one-third of which is city, one-third of which is company, and the other third is neutral.

Millions Already From the Deal

"Now, what is left is divided between the companies and the city in the ratio of fifty-five per cent. to the city and forty-five per cent. to the companies. Out of that fifty-five per cent, these companies have put in the last four years into the city treasury of the City of Chicago more than six million in cash. That is not paper profit, it is real cash in the bank subject to the order of the city comptroller as directed by the council, and it can only be spent for the construction of subways or transportation facilities in the city. In other words, the city cannot take that money and use it anywhere it wants to, under the present ordinances. This money must be spent as directed in the ordinance.

"The companies have put into the city treasury sixty-six million dollars in cash and the companies have taken out as their forty-five per cent. of the net probably four million five hundred thousand dollars. I am guessing at that, but it is at the ratio of forty-five per cent. to fifty-five per cent., and that forty-five per cent. has enabled them, in addition to paying this five per cent. upon the real cash value of the property, to divide among their stockholders something more, making a total of about eight per cent. upon their money. That is the incentive to which I referred. Now, if we could create the same incentive, or, rather, command the same talent with the pay that we could pay in a publicly managed corporation—I mean, a municipal corporation—

Digitized by Google

if we could get the same kind of brains to run the properties on a salary, we would not have to pay that forty-five per cent. But until we get into that condition we think this is the better policy."

The British Way

Councillor Buist: "My feeling is—of course I may say I come from the other side of the water—on the other side of the water we find that the publicly managed corporations are the most efficiently managed corporations that are in existence for public utilities. If you take the tramway system of any of the cities of Great Britain you will find that every one of them that is publicly managed is in a far more stable financial condition, and is giving very mush better public service than any of the corporations that are managed by private corporations.

"In Scotland we have two large cities; the one, the city of Glasgow, has its public tramways, the other, the city of Edinburg, has tramways which are managed by a private corporation with certain stipulations such as you have in Chicago, a certain amount of money which is paid back to the city. And if you take those two tramway systems you will find that the city of Glasgow tramway corporation is one of the most efficient corporations that is in existence in the whole world; while if you take the Edinburgh tramway system you will find that there is no system in the whole of Britain that gives more trouble to the inhabitants of the city than the tramway system of Edinburgh. And I am glad to say it is the fact that we have found that not only are we getting it more cheaply managed, but we are getting it more efficiently managed and the public are deriving the benefit. In Glasgow we take you as far as it is possible to go for a penny, four miles for two cents. In Glasgow we have recently introduced a new experiment, giving you a transfer ticket for three cents so that you can go on three lines for a penny and a half penny, instead of one as at present.

"Of course, you have to take one thing into account, that we in our country are by act of parliament bound every year to provide for the paying off of the capital sum invested, so that you see here you don't have to take that in account in your private companies; you put in so much money and you are leaving it there at the interest paid year by year. With us we have to pay off the whole capital sum within a limited number of years and that of course is a very heavy charge."

One Fare and Zone Fares

Said Chairman Arnold: "In this country we have thus far, except in one or two instances believed that a five-cent fare was low enough and we wanted to get five cents' worth of service. In this particular city we charge five cents and we get a transfer upon transfer; we can ride anywhere within the city limits, from one point of the city to another point, provided we go in one general direction—north and west, and north and west, etc.—we can ride something like twenty-five miles for five cents. Of course, no corporation can afford to haul all its passengers twenty-five miles for five cents, but the average haul is sufficiently less than that to make it profitable.

"Now, the British system is upon the zone principle; they pay for what they get. The passenger gets just what he pays for. If he rides two cents' worth he pays two cents, and if he rides four cents' worth he pays four cents, and ten cents' worth he pays ten. There I think is the fundamental difference between the two schemes and one reason why your corporation is able to pay as well as it does in Glasgow, and maintain itself and have a surplus as it does, it is because it gets a higher average rate of fare, probably, than we are getting in this country for similar service."

Good Roads as an Asset

M. O. Eldridge

M. O. Eldridge, of the office of Good Roads, United States Department of Agriculture, in an address on "Good Roads as an Asset," illustrated by stereopticon, said: "In the United States we have about 2,200,000 miles of public roads, and I am ashamed to tell you that of that mileage only about 200,000 miles are improved. In other words, we have enough miles of bad road in the United States to reach around the earth at the equator eighty times—more miles of bad road than any other civilized nation in the world.

"There are about 365,000 miles of railroad in the United States, so that you can see that we almost have two miles of railroad for every mile of improved road in the United States.

"In building the Egyptian pyramids, Herodotus tells us that it took about ten years, and that about 100,000 men were used in the construction. In order to haul the material it became necessary to build roads, and so far as we know, these were the first roads that were ever built.

Digitized by Google

"The historic Appian Way was begun by Appius Claudius 312 years before Christ. The Romans built altogether about 52,000 miles of roads, all of which radiated from Rome. There are about twelve of these great systems running out of Rome to the uttermost parts of the then known world. Temples and tombs are fast crumbling to dust, yet the roads still remain, many portions being practically as good as when it was built. In road building the Romans dug a trench about three feet deep, and in that trench they laid two layers of stone, large blocks, and then on that they placed two or three layers of Roman cement, and then on the surface another layer of large blocks.

Napoleon's Masterful Work

"No roads were built during the dark ages, and road building was not started again until Napoleon's time. When Macadam came he did away with the large stone in the foundation altogether. With the stone crusher and roller, we are building roads today which are practically as good as the Roman method. One of the most remarkable roads built by Napoleon ran from Geneva, Switzerland, to Milan, Italy, and like the Roman roads, it was built for military purposes. It is said to have cost about ten to twelve thousand dollars a mile, even in those days. It was the first modern road built across the Alps. Napoleon ran his roads around the hills, instead of over. The old Roman method had been to go over the hills, but the French engineers conceived the idea of going around the hill instead of going over, and that is our method of road building today. France has about 200,000 miles of macadam roads, which are second to none in the civilized world, and I think their excellence is due almost entirely to their system of maintenance.

The Split-Log Drag

"The split-log drag for keeping the roadway in repair is a simple little instrument, and the roadbed after it has been properly rounded can be kept in fairly good condition at a small cost, provided the drag is used from ten to twelve times a year, at a cost of not over 50 cents a mile. In Hardin county, Iowa, for instance, every road in the township is dragged within one hour aver every rain. Every man who has a drag also has a telephone, and he is requested by the central road boss to turn out and drag the road. The result is that they have in that township good roads at a cost of not more than $5 a mile a year. A way to get bad roads is to dump gravel into the middle of the way and trust to traffic to spread it.

"A road is just like a house—it must have a proper foundation and roof. The foundation must be smooth and solid and round, just the same case as the finished road, and then we must have a shoulder on each side to hold the material in place. That is our foundation, and it must be hard and smooth. The most important step in the building of a road is the placing on of the shingles of the roof, because if the roof leaks, then the foundation will get soft and will go to pieces, and that is why so many macadam roads fail.

"Wherever these improved roads are built, we notice that people buy the farms and build good homes. On the bad roads you will very often see the fences and the farms and the houses in a dilapidated condition. But where the roads are improved the land immediately advances in value—in some places as high as 50 per cent, in others a hundred per cent, and in others two or three hundred per cent.

"Good roads mean rural free delivery. The government is willing to deliver the mail to everybody living on good roads in the country. I believe the time is coming when they will refuse to deliver mail to people living on bad roads. That is true to a certain extent today.

How Automobiles Affect Roads

"There is another problem that has come up during the last few years, and that is the dust problem. When the macadam road was designed they did not know anything about the automobile; but the automobile has come forward as a dustmaker and a road destroyer to a certain extent. We find, however, that the automobiles do not injure all the roads; they do not injure the gravel road very much, or the dirt road very much, but they do injure the macadam road, provided the speed of the machine is in excess of twenty miles an hour.

"There are two or three different methods which the Department of Agriculture has devised, and which we are recommending for treating macadam roads where they are subject to this automobile traffic. One method we call the penetration method—that is, by treating the surface of the road with liquid asphalt or tar. The next is the mixing method. The materials are mixed with the tar or the bitumen before being applied. We built about fifteen or twenty miles of road to show the effects of the various kinds of materials used in treating the roads.

Digitized by Google

The First State Road

"The first state-aid road built in the United States was the Georgia road, in Camden county, New Jersey, built in 1892. Since that time thirty-five of the states have adopted that principle of state aid, and this year we are spending on the roads in the United States about $140,000,000. Five years ago we were spending only $80,000,000—and it is being spent largely under state aid. There has been over $5,000,000 expended in Tennessee during the last five years by bond issues from the various counties. The government is doing considerable work in connection with irrigation projects in building roads.

"The people of Arizona, New Mexico, Colorado and Wyoming, and those states where they have the beautiful mountain scenery, are beginning to realize the importance of building good roads to attract the tourists up to that country. It is said that there are upwards of $50,000,000 spent every year in Switzerland by foreign tourists, and I believe that if we had roads like this in our own western country that it would not be long before our tourists would be spending their money in this country rather than abroad.

"The government has done considerable work in the Yellowstone park and in the Yosemite valley. There are about four hundred miles of road in Yellowstone park.

"Note the economic difference of a good road and a bad one. In many southern states in the winter one bale of cotton—500 pounds—is a load for a two-horse team; and in other parts of the country this also is a maximum load. Little chance in a bad-road country of taking quick advantage of a 12-point rise in cotton. But what are good roads in the South? Well, on roads largely built by convict labor in Mecklenburg county, North Carolina, twelve bales of cotton—6,000 pounds—can be hauled by a two-horse team."

Problems of City Planning

Charles R. Lamb

Mr. Charles R. Lamb, a director of the Merchants' Association of New York, and chairman of its Committee on City Plan, said: "I speak from the position of the merchants who have in their hands and through their organizations throughout this country, to my mind, the absolute power to dominate and, if they have the will, to secure the successful outcome of city planning and its immediate growth and development for us of this generation. Out of the dim past comes all the market towns, the crossing of all the trade routes, and from the town market or the crossing of the roadways rises at once, inevitably, the buildings needed by the market, the inn at once for refreshments; the place of housing while you are bartering your goods, and then, of course, the homes of those who carry on the market and those who are associated with the market; and so, step by step, the buildings creep around the crossings of the road and ultimately the church and the school required by the market, incidentally the recreation center, and the theaters for the strolling player who only comes and sets his stage in the market place, and that stage that is hardly set under roof in time becomes a theater.

The Imperative Factor of Transit.

"Your city becomes a center only of barter and exchange and your business interest is temporarily the civic and the focal point. The cities which are exceptions are those having a specialistic purpose, as, for example, education, where the founding of a great university brings the city around it as necessary to its physical life; and a political city like our own capitol at Washington, where the capitol is first located, and the city grows with the relation to these features of city life essential to a great political center. No city planning can be successful for a city which does not try, first and foremost, to solve the greatest of all problems for all cities, and that is the problem of transit. What kind of a city is it which congests its population so that it cannot move? What kind of a city is it that tries to do business with its neighbors and has its freight all over its yard? What kind of a city is it which does not realize that its power to live in the competition of cities is its power to do its business economically, rapidly, efficiently and well, and thus live as against every other city? Read your history of the rise and fall of cities and what will you find? As the changed conditions of business came, so cities rose and fell. If we of today are to hold our own, we have got to face the inevitable competition one with the other—you in Chicago against us in New York. We in New York against you in Chicago, and San Francisco, and New Orleans. Call the roll where you will, there is that definite competition.

Digitized by Google

Value of Beauty as Municipal Asset

"And, moreover, we have to face the competition of all the world, and New York never will be a great metropolis until it is able to hold in its hand power sufficient to say to London and Paris and Berlin and Vienna and Budapest—to any great center abroad: 'We are able to meet you on your own ground of supplying what the world needs, economically, effectively, immediately,' and when we have done that then we have got a great metropolis.

"That community will prosper which realizes the value of the idea of artistic quality behind the merchandise, and says to all the world: 'We know that as a city we have got to make our city practical; yes, economically administered. Yes—but also, and do not forget this—also so beautiful that you will want to come and stay with us, and you will want always to visit us. That is why Paris takes untold millions from this country, not only because it has things to sell, but because everybody that wants to buy from France wishes to go there himself to do the purchasing and see Paris.

The Evil of Congestion

"There are blocks in the city of New York so congested in population that if the same congestion should extend, not over greater New York, but merely the island of Manhattan, one borough, every individual in the United States, you and I included—could be found on the island of Manhattan; and that the citizens of New York have been so purblind to the health of the city that we have allowed the selfishness of real estate men to actually congest humanity into blocks in New York so densely that there is no city in the world—not even in China itself—that has a record as bad. Now, what kind of a city, looking at it from a business proposition, is it which will permit that to continue Thank God, we are not permitting it, because we are starting in to clean house. But we are now just about ten years too late. We are now going to pay not merely in thousands of dollars, but ultimately in millions of dollars, to widen streets, to cut small parks, and so forth. We are going to tear into a population and a congestion which we have allowed to continue in its growth in the last ten years, and our children and our children children's will pay the price for the errors that we in one generation have permitted.

The Need of Civic Foresight and Courage

"Don't you do that in Chicago. Wake up. I have not seen as yet your city plan or studied it, but I do hope that in the scheme of city planning here in Chicago that you will take and drive square through your fester spots and put roads down—great avenues, that will cut straight, like a surgeon's knife. How is it that London can have its Kingsway and its Shaftsbury avenue, but when we put down a splendid avenue somewhere we are told it is too expensive? Parliament took so much land in cutting the Kingsway, so that when the land is resold by the city of London the entire improvement will come back to the city and be no charge to the taxpayer. If you have read the New York papers of this last week, you will find that bills are already up at Albany, with a very good chance of being passed, which will permit within the state of New York at least excess condemnation on the part of a city so that it may lay out not merely the line of the avenue they want, but the extra land facing on the avenue, and then in turn sell that at its increased value. If that law is passed it makes possible the most important of all your changes because, naturally, when you lay down lines for city streets, city parks, or what you will, you are laying them usually where the land is the highest priced, and where under our method of valuation the city always pays the highest price.

Co-ordination of Departments

"If, however, you may not secure such a law in the immediate future, you have two other ways of getting your improvement. One way is as was done in Washington by the co-operation of the Pennsylvania railway, where the city planning was made possible by the willingness of the railway authorities to change their station from one point to another point which made it artistically located on the new city plan. This is intelligent co-operation between, not against, the great semi-civic corporations like the railways and the city administrations. That line has not been developed intelligently. There has usually been antagonism between both or an unwillingness on the part of the community to consider such development.

"One other point that you have a right to expect from your city and those who administer your interests in the city is a proper co-ordination between the departments and their expenditures. I do not know the record here in Chicago, but I do know the record in New York, and it is absolutely disgraceful. When you find the board of

Digitized by Google

education making one expenditure for schools, the police department making another expenditure for its stations, the fire department making another expenditure for its stations, and so on throughout each city department, spending in this way millions of dollars and never focalizing any of their expenditures, you realize at once this lack of co-ordination. The educational department, fire department, police department, medical department, and so on, each is required to have practically a building in its own locality. Again, our library institutions are subdivided. Each ward has a public library, a public school, a police station, a fire station, and a hospital, and also a city hall.

"Is it too much that we who voted twenty years for such centralization of expenditures shall ask that a city park shall be selected and the property surrounding it shall be utilized and a group of city buildings becoming a civic center in every ward shall be made by the city departments themselves at less expenditure to you as citizens and taxpayers, and at infinitely greater advantage artistically and architecturally to us who would like the opportunity to show what six buildings facing on a park can do as against six buildings shoved off in side streets anywhere.

Object Lessons for School Children

"Those are the three thoughts I have to leave with you: First, call upon your lawyers and so-called statesmen to see that the necessary changes in your laws are made so that excess condemnation is given into the hands of the city, and property can be bought in excess and resold. In the interim see what intelligent co-operation will do between a city administration and the public carriers like your railroads. And lastly, but immediately, insist that every possible expenditure of the city's money for city building or city improvements shall be so focalized that it will stand as an object lesson to the various children in the various schools.

"My first visit to Chicago was at the time of your World's Fair Exposition. I as a young man was fighting mad because our citizens of New York let you of Chicago walk down to Washington and take away the prize. I believed in the exposition and I came out here to see what you did with it. I stood in your Court of Honor, and I should have been glad if Mr. Burnham had been there personally so that I could have paid my compliments to him, and as a young man I took off my hat, physically and mentally, to the power of centralized architectural expression which, up to that time, had never been made in this country. I ask you, in the memory of that exposition and that same centralization of architectural effort, why, in the decade since then have you not as citizens of Chicago something to show to me once more, a visitor, that is the equal of what was done then?" (Applause.)

Home Rule for Cities

John A. Dix

Governor Dix of New York, although unable to attend the Congress, was represented through the following communication, submitted by proxy: "This gathering of executives is a most encouraging sign. It must, I think, be conceded that there is a basis of fact in the general belief that city government is the one glaring failure in our American system. The efficiency and strength of our national government is beyond question. It is admitted that our system of state government has vindicated itself; but nobody can deny that in the administration of municipal affairs through the agency of municipal government there is much to be desired.

"The failure of city government in a nation founded on the principle of self-government would be an immeasurable calamity if the failure were due to inherent defects in our people. It would constitute an unanswerable indictment against democracy as a workable system of government, were the flagrant short-comings in the domain of municipal administration chargeable to causes beyond reach and beyond reform.

City as Serf of State

"There is no failure of the fundamental democratic principle in the failure of city government. Whatever of failure there may be is due to the refusal of the people to apply to the government of cities the fullest measure of the democratic principle of self-government, or home rule. The nation is supreme within its own domain, as is the state. But the city is the serf of the state. Instead of a self-governing community, the American city is an aggregation of people that in fact are the subjects and the victims of a legislative power outside themselves and greater than themselves. We have a national conscience and a state conscience. We have a sense of pride in the achievements and success of our national life. We love and revere the state in which we live. But there is lacking in us that municipal conscience without which there can be no genuine fulfillment of the duties and possibilities of municipal life.

Digitized by Google

"This deplorable fact is accountable for the principal evils of which we complain in our city governments. The most inspiring and encouraging feature of this congress is the proof it affords that at last there is an awakening to municipal needs that will result in the creation of a municipal conscience which will develop into a strengthening of municipal government that will give new hope and new life to American cities.

City's Right to Adequate Authority

"The topic you have given me, 'Home Rule for Cities,' goes to the very root of the municipal problem. The necessary condition of efficient and honest municipal government is an adjustment of relations between the state and the cities that will make the cities as free from state interference and control as the states are free from national interference and control.

"There can be no right solution of the problem of city government until it is admitted that the city has an inherent right to be endowed with adequate authority that can be exercised without interference from any quarter to satisfy the rights and meet the needs of the people within the municipality. Local self-government should be as clearly and definitely established as state government, or as the rights of the nation within the lines of the federal constitution. The time has come when the cities should demand that instead of being governed as subject provinces, they should be endowed with powers of government as complete and efficient as those vested in the state and nation by the state and federal constitutions.

"We have incompetence in city councils. We have police forces that are demoralized, and city departments and bureaus that are inefficient. How can it be otherwise when the city is treated as a dependency to be controlled and governed in its vital affairs by an outside law-making body that can possess little knowledge of its needs and is often careless of its rights and its interests?

New York's Proposed Advance

"The legislature of New York state has enacted a law which automatically gives a charter to a city of the second class, and there is being prepared for introduction at the next session of the legislature in January, 1912, a similar law affecting cities of the third class, so that any village having the required number of inhabitants to be a city of the third class may receive a charter uniform with other cities of that class, wherein is delegated to the people all necessary authority to conduct its municipal affairs entirely on the 'home rule' principle, embodying unequivocally the principle that the people shall have the right to spend their own money as they find necessary for the needs of their community, without dictation from any higher authority than themselves.

"This will relieve the legislature of special enactments for the flushing of streets, the construction of docks, authorizing firemen's conventions, providing funds for the maintenance of a hospital, empowering the city to issue bonds to pave streets, construct sewers, purchase of public buildings, the regulation of salaries of officials, and other matters which seem entirely unwise for a legislature having representatives from every section of the state to attempt to regulate, thereby diverting its attention from broad principles to devote its time to the consideraion of purely local matters.

"If the authority was once given to the cities and villages, each knowing in advance the form of charter that it must be governed under, it would do much to stimulate civic pride, dignify municipal responsibility and inspire wholesome administration in the various city departments and the regulation of affairs purely local. One of the great evils resulting from the accomplishment of legislation for purely local or trivial matters is the exchange of votes on matters of import, or constructive legislation state-wide in its application and in its results.

Emancipation From State Control

"The legislative department of our form of government should not be given to the enactment of a great number of laws, nor for the enactment of special acts where general laws can serve the purpose and benefit the great majority of citizens. The fundamental principle of democracy must be applied to city government. Our cities should be emancipated from state control. They should be self-governing communities in the full meaning of that term.

"'Home Rule' and local self-government are accepted as theories in our system, but in practice there is not the full application of the theory. If 'home rule' and local self-government were fully and permanently established, mistakes would doubtless be made in the government of our cities, but the mistakes would be by the people themselves and correction would quickly follow.

"The state should permit every city within its boundary to be a self-governing community. The relation of the state to municipal government should begin and

Digitized by Google

end with the grant to the municipality of power to act for itself in every legitimate department and function of local government. The problems of city government may be numerous and complex. They must be met and solved where the problems exist by the people who know and understand them.

Basis of Civic Pride and Responsibility

"Endow our cities with the self-government to which they are entitled and at once there will be created a sense of civic pride and civic responsibility that will in turn generate a vivid sense of public welfare. Establish the true relation of state and municipal government by abolishing the present relation of master and servant; substitute the correct relation of governments of independent power, each in its own sphere, and we shall have better city and better state government.

"This Congress is of itself a guarantee of the establishment in the near future of sound principles of municipal self-government that will operate for the improvement of conditions which enter into the every-day life of every family and every citizen.

"In all true Americans there is a sense of civic pride that needs but awakening to be a living force working for the uplift and efficiency of municipal government. With this civic pride aroused and utilized for the emancipation of our cities from state control, there will come a day when the American city will be the best governed city in the world."

Commission Government

Ford H. MacGregor

Prof. Ford H. MacGregor, of the University of Wisconsin, discussing "Commission Government," said: "Commission government has spread until now thirty-two states in the Union have made provision in one way or another for its adoption. In the eight home rule states—Michigan, Minnesota, Missouri, Oklahoma, Colorado, Washington, Oregon and California—cities are permitted to draft and adopt their own commission government charters. In twenty states—Maryland, New Jersey, South Carolina, Kentucky, Alabama, Mississippi, Wisconsin, Illinois, Iowa, Louisiana, North and South Dakota, Nebraska, Kansas, Texas, Montana, Wyoming, New Mexico, Idaho, and Utah—general laws have been passed, outlining commission charters which cities in those states may adopt by popular vote. Four other states—Massachusetts, West Virginia, North Carolina, and Tennessee—have provided commission government in individual cities by special charter. Over one hundred and fifty cities, altogether, have adopted and are now operating under the commission plan. It is unquestionably popular.

In Primitive Days

"There are just two great problems in municipal government today. One is the problem of devising a system of organization which will permit and encourage public officials to administer public affairs efficiently and in accordance with popular will, and the other is the problem of devising the means of selecting and choosing the right kind of officials to administer this system, once it has been devised. The position of the city, the functions it performs, and the social, economic and political conditions under which it is administered have changed unrecognizably since the common council system was imposed. Then the administrative duties of the city were few. There were no street railways, no telephones, no telegraphs, no municipal gas or electric light plants, no great waterworks and water purification plants, no great sewer systems and sewage disposal plants, no garbage crematories, no miles of expensive pavements, and hundreds of acres of parks and parkways, with municipal greenhouses, public baths, playgrounds, and gymnasiums. There were some wooden pavements and some open sewers. The municipal lighting plant consisted of the lamp lighter, who went about at dusk and lighted the lamps on the street corners, and every man's well was a part of the municipal water supply. Then the principal functions of the city were the protection of life and property, the care of the poor, and the administration of the public schools.

Requirements of a Business Corporation

"Today the city is almost wholly a business corporation, and yet we are trying to administer our cities under the same system, with a few modifications, that we did before the industrial revolution of the nineteenth century began, and when the largest city in the land had less than 50,000 population. Not only have the functions of the city changed, but the whole popular attitude toward government has changed. The economic conditions of today demand concentration and centralization. Capital is everywhere being combined. The management of great business enterprises is being

Digitized by Google

concentrated in the executive heads of industrial corporations. The same economic conditions which demand concentration in business demand concentration in government, when government is mainly concerned with business undertakings.

"So long as present-day economic conditions prevail, the commission form of government, or some form of government which embodies the general principles of commission government—the concentration of power and the fixing of official responsibility—must become the dominant type of municipal organization in this country. There must be a readjustment of the machinery of government to fit these economic conditions. City government must be organized on the same basis, and must utilize the same principles of business management that have been adopted and found so successful in other business, industrial and commercial enterprises, if the same satisfactory results are to be obtained. The same business management is required in the operation of a municipally-owned water plant as in one privately owned. The same prompt and decisive action should characterize the management of a municipal electric light or gas plant as a private one furnishing the same service to the same citizens.

Why Complicated Municipal Machinery?

"Why should the affairs of a city demand administrative machinery so much more complex than that of the large private corporation? What would be thought of a business corporation that intrusted its management to a bicameral board composed of directors, elected by the stockholders from geographical districts, representing different interests, and designed to embody a system of checks and balances? Imagine a business in which every matter to be considered must go first to a committee of five, then to a body of twenty or fifty, and finally to a single independent head for approval or disapproval—'never once in its journey feeling the vital touch of a responsible hand, or the illumination of an expert mind.' How long could such a business exist in competition with 'the savage, personal self-interest which drives the corporation of today'? Yet that is what nearly every municipally-owned utility in our American cities is doing even today!

A Business and Municipal Analogy

"Objection is made to the analogy between the municipal and the private corporation on the ground that the private corporation is run for profit, while the public corporation is not. That is true, or should be. It is also true that in determining matters of policy, the municipal authorities should give weight to some considerations of social well-being which the management of a private corporation may not, but from the standpoint of organization and business management, the analogy holds good, nevertheless. True, the private corporations must add a reasonable profit to the cost of the service, and the municipal corporation should not; but the ultimate object of the two corporations is the same. With a given standard of service, the object of the private corporation is to reduce costs in order to make profits as large as possible, while that of the municipal corporation is to reduce costs in order to make the rates for the service as low as possible. Profits are paid to the stockholder in dividends in the one case, and to the consumer in reduced rates in the other. The form of organization to secure efficient management is the same in either case, the object being in both cases to reduce costs.

Elements of the Commission Form

"Under the commission form of government, the entire administration of the city's affairs is placed in the hands of a small board of three or five men, the same as in the case of a corporation. These administrators are elected by the city at large and are responsible to the city as a whole for the efficient conduct of the city's business. They are given power to do what is necessary to be done, restrained only by their responsibility to the people. Usually they divide the administration into departments, a commissioner assuming charge of a department, and each is held directly responsible for the management of his department. If things go wrong, he has no one to blame. He has the power to choose his assistants, and if they prove unsatisfactory he can dispense with them at once and secure assistants that are satisfactory. If he does not do so, he becomes responsible for their inefficiency and must answer for the same to the people. He must stand upon his record and the record of the assistants which he has chosen, for re-election. If experts are needed, he has the power to get them. If a change in the accounting system is needed to ascertain the cost of a certain unit of service, he has the power to make the change. He is unhampered by any system of checks and balances, by any separation of power, or division of responsibility. He has no excuse for delay, or reason for shifting his burden to the shoulders of his subordinates.

Digitized by Google

Responsibility Absolutely Fixed

"The system is simple, direct, efficient, businesslike. Responsibility is absolutely fixed; some one man is responsible, and every voter knows the man. It is an easy matter to tell if the streets are clean, if the water is clear, the police service good, or if the garbage is collected every morning. The public official is judged simply and solely upon the service he gives. The citizen knows the head of every department—the man who is responsible for everything the city furnishes—and votes accordingly. As has been said: 'A citizen can judge the man who furnishes the streets and city water and other municipal supplies just as well as he does his grocer and milkman. If the product isn't good, discharge them and get new ones.' The commission plan is in harmony with the functions which the city of today has to perform; it is up-to-date; it fits into and meets the demands of the economic conditions under which it must be administered; but it will undoubtedly have to be modified in several particulars. A commission system for New York will not be just the same as for Des Moines. There will have to be certain changes to adapt it to the local conditions, although, for instance, the principles involved in the disposal of New York's garbage are just the same as those involved in that of Des Moines.

New System's Weak Point in Election

"The most important question facing our cities today becomes the selection of the administrators of this commission plan, or our election system—the second great municipal problem. The commission contemplates the election of men to office who are especially qualified to perform the duties of the department of which they assume charge. The election system must insure the election of such men. And here is where the weakest point of the commission plan as it is being operated at the present time is to be found. All commission cities have not been as successful as Des Moines in its choice of a street commissioner for instance, and the question has arisen, 'Can experts be chosen by popular vote?' In some cases they have, and in some cases they have not. And this may tend in the future to give preference to the Galveston rather than to the Des Moines plan, by electing commissioners from among the business men, to give part of their time to the direction of municipal business, and to select these experts to take actual management of the particular departments instead of electing them, following again the practice of our industrial corporations, thus selecting an engineer to be superintendent of streets, a certified accountant to be auditor, and a national bank to be city treasurer, etc., securing in all cases a man to take charge of each department who is technically trained along that line.

Reducing Municipal Government to a Science

"But these are experiments which must be tried out in our efforts to perfect our electoral system. They arise under any form of organization. There are to be found in the commission charters of cities now operating under the plan, almost every device of progressive election machinery—direct primaries, non-partisan and majority elections, cumulative and preferential voting, the English system of first and second elections, and the recall. But unfortunately at the present time there have been in none of these cities a sufficient number of elections to afford a thorough test of any of these numerous devices. There is little doubt, however, but that the direct primary, and the non-partisan and majority election will contribute greatly toward the solution of this second great problem of the city government.

"We are on the right track. We are reducing municipal government to a science. We are beginning to utilize the principles that have been worked out in business and industrial pursuits where competition has been keenest, and where the right form of organization and business management has meant success. The same demand for efficiency and economy which has permeated the industrial corporations and the transportation companies, has at last reached municipal corporations, as the increasing number bureaus of efficiency and economy attest. With this demand, and this point of view, the perfection of our election system will follow the perfection of our system of organization, and our municipal government will be transformed from the 'one conspicuous failure' of American institutions to the most phenomenal success."

Des Moines Plan of Commission Rule

James G. Berryhill

James G. Berryhill, of Des Moines, Ia., reporting on commission government as practical in that city said: "The commission form of government is not wholly a new experiment in the United States. The best illustration of its successful working

Digitized by Google

is that of the city of Washington, of the District of Columbia. Some years ago, shortly after the civil war, congress, disgusted with the local municipal mal-administration, by a law provided for the organization of the municipal government of the city. Under that act the president of the United States appointed three commissioners, who were clothed with full municipal powers, executive, legislative and quasi-judicial. The committee of Congress known as the committee on the District of Columbia, shaped this legislation, and all supplemental legislation thereafter. The extraordinary feature of the plan, however, consists in the fact that the citizens of Washington are not allowed to participate in the government of the city, and have no voice therein, other than that which accrues through public opinion, directed upon the commissioners and the committees on the District of Columbia.

"Another early and somewhat notable experiment was that of the city of Memphis, Tenn. In 1878 the city was visited by a disastrous epidemic of yellow fever. The streets were poorly paved; the sewer system of the city was scarcely developed, and cess-pools and surface drains became infected to the serious impairment of the public health. The entire sanitary system of the city had to be reorganized. The municipal authorities repaved and resewered the city, and incurred heavy indebtedness therefor. This indebtedness was so excessive that the municipal authorities found it impossible to meet it. Default resulted, and the holders of the bonds and paving certificates commenced proceedings against the city in the United States circuit court, and secured the appointment of receivers to take charge of the resources of the city, and levy taxes for the discharge of its indebtedness.

The Case of Memphis

"The supreme court of the United States sustained the action of the lower tribunal, and the receivers so appointed practically exercised all municipal functions and became, in fact a commission exercising the functions known to-day as those involved in the commission form. The receivers, however, were not necessarily citizens of the city, and strong prejudicies developed against their retention. A popular movement was instituted, and under a compromise agreement with the creditors, the citizens induced the legislature to enact a law creating a temporary tax commission by appointment of the governor of the state. This commission assumed all the authority of the receivers, and administered the affairs of the city for several years so successfully as to liquidate the floating indebtedness and refund the permanent. Their administration was signally successful. Upon the completion of their work, the old system of government by mayor and ward councilmen, was restored.

How the Galveston Plan Originated

"These two examples are the most notable experiments before that made in the city of Galveston after the city had been devastated by storm and flood. Eight thousand of her people lost their lives; twenty millions of property was destroyed, and the city left in a helpless condition, with tremendous financial burden, apparently beyond the ability of the city to discharge. Thousands of her citizens left the city, never to return. The few enterprising men who remained found it necessary to take radical steps for the city's reorganization. The old form of government was not equal to the emergency. The financial resources of the city were exhausted. The mayor and board of city aldermen were elected, without reference to such emergency, and were not men of sufficient ability to cope with the situation. Some years prior to the storm, the citizens had organized a volunteer association known as the 'deepwater committee,' the purpose thereof being to secure support from the national government for the improvement of the harbor of the city. These men conducted their campaign before congress successfully; solidified public opinion in favor of the cause, and secured the necessary legislation from congress, which has resulted in harbor improvements which has given the city the second largest exporting harbor in the United States.

Success of the First Commission

"The members of this committe soon realized that public confidence had disappeared, and that herculean efforts were necessary to save the community. They secured a legislative enactment from the legislature then in session, for the re-organization of the city, upon the commission plan. The law, as enacted, provided for the appointment of three commissioners by the governor, and for the election of two by popular vote. The officials, legislated out of office, contested the validity of the act; the court of civic appeals held the appointive law valid, while the court of criminal appeals held the law void, upon the ground that, by the appointment of three of the commissioners by the governor, would deprive the community of the right of self-government. The legislature immediately amended the act, and provided for the

Digitized by Google

election of all of the commisisoners by popular vote. The administration by the first five commissioners appointed and elected was successful to a marked degree, and no movement has been so influential in the restoration of Galveston to its former commanding position as an exporting and importing center, and a recurrence of the terrible disaster caused by the hurricane is not now possible.

How the Idea Came to Des Moines

"During the fall of 1905, I visited Galveston, and had occasion to investigate its form of government. I was deeply impressed with the success realized under this system. I visited merchants, lawyers, doctors and citizens of all classes; called upon the members of the commission, and the members of the deepwater committee, and was astounded to find public opinion almost unanimous in favor of the change. Upon my return to Des Moines, and at the solicitation of the members of the Commercial club, I presented a report in a public address to the citizens of Des Moines. The meeting was largely attended. Our city government was weak, ineffective, and unsatisfactory in the extreme. The councilmen were men of fair standing, but, under the old ward system, with a board of public works, not reached by public opinion. A committee of five citizens was appointed to prepare a new charter for the city. I was selected as one of the members of the committee, and made its chairman. The Des Moines plan of municipal government was the result of our deliberations. The system involved many modifications of the Galveston plan; developed through a study of municipal government, and through careful consideration of the demands of public opinion. The measure was submitted to the general assembly which met during the winter of 1906. It provoked strong opposition, largely by reason of the fact that the measure provided for a non-partisan election. In the meantime the so-called Indianapolis system, which involved the concentration of full executive responsibility upon the mayor, and the restriction of legislative authority to the council attracted the attention of our citizens. A committee of two hundred was appointed and a public meeting called for the discussion of the relative merits of the Indianapolis and the commission form of government, and by an overwhelming voice, they declared in favor of the commission form. The enacted system devised by the legislative committee of which I was chairman, while it contains many of the features of the so-called Galveston system, in many respects radically departs therefrom.

Des Moines Commission is Elected at Large

"The Des Moines plan involves the selection from the body of the citizens of five men, one to be known as the mayor, the four as councilmen, all of them elected at large. Ward lines, so far as selection of candidates is concerned, are abrogated. Upon these five men is centered all municipal power, executive, legislative, and quasi-judicial. The law provides for the nomination of two candidates for mayor, and eight candidates for councilmen, at a non-partisan primary, conducted under the Australian ballot election law. Any citizen can become a candidate, upon the petition of twenty-five citizens, and his name is placed upon the primary ballots. Two men are nominated for mayor, and eight for the four places on the council. At the election following, a selection is made of one of the two candidates for mayor, and of four of the eight candidates for the council. This system of election differs materially from the Boston plan. Under that system, no one can be a candidate for mayor, or for the council who is not endorsed by a petition signed by 5,000 electors. There is no preliminary primary, but the election is decided between the candidates who secured the requisite number of signatures to their petitions. The election of a candidate does not thoroughly represent public opinion, but simply the opinion of the electors who support him. Under the preliminary primary plan, public opinion is given a much clearer opportunity of expression.

Non-Partisanship and Advantages

"By the abolition of the Ward system, great progress has been made in the reform. Under that system two parties make nominations. The party in the majority usually controls the election, but its candidate is likely to be nominated by the faction in ascendency for the time being in the party organization. As a result, the ward candidate of the party may be elected solely by reason of the devotion of the voters to the party organization. Under the party system, many of our voters are driven to support party candidates, and in numerous cases the qualifications of the candidates are not factors in his election. Under the non-partisan primary, and election system, party influence is not possible. The average voter cannot be driven, under this plan. The question before him is not, who shall be his next governor, congressman of his district, or United States senator to be elected by the general assembly. The question is narrowed down to the simple one of which of the candidates proposed is best qualified to perform the duties incident to the office in question. The Des Moines plan act regulates the primary and general election by the general features of the

Digitized by Google

corrupt practice law. Men who are using money to buy votes and promise office for votes, are subject to criminal penalties.

Choice of Department Heads

"In the matter of the organization under the law, we provide that the mayor shall be a member of the council. He acts as presiding officer; is made the eyes of the city, as the head of the department of public affairs, but exercises no greater voice in municipal affairs than his colleagues. It is his duty to investigate all the departments; review them, and to report to the public, from time to time, regarding the administration of the city. One member of the council is elected by the council as the head of the department of streets and public improvements; a second, the head of the department of finance and accounts; the third, the head of the department of public safety, which controls the police and fire departments; and the fourth, the head of the department of parks and public property. The duties of councilmen, with respect to their departments, are clearly defined in the act, and each councilman is made personally responsible for the administration of his department. Individual responsibility is preserved and collective responsibility is not lost sight of. In the event that the head of a department fails to properly perform the duties incident thereto, his work may be transferred by the council, in its collective capacity, to another department.

A Citizen a Stockholder in a Municipal Corporation

"We have recognized another element necessary to good government, namely, that of publicity. Resolutions and ordinances of an emergency character involving catastrophe, may be acted upon quickly, but all other measures of a general character must be put in complete form and remain on the table, subject to public inspection, for seven days, before their final passage. Upon the enactment of a resolution or ordinance, the measure must lie on the table still subject to public inspection for ten days, before going into effect, to enable the citizens to exercise their right of protest. This right of protest is quite extraordinary in its nature. If a petition signed by 25 per cent of the electors is presented to the council within the ten days in question, protesting against the enactment of the ordinance, it becomes the duty of the council to again consider the measure. If it is repealed, the episode is closed. If the council refuse to repeal it, it must be put to a popular vote for approval or disapproval before going into effect. Under this provision we recognize that the city is, as it were, a corporation, and that each citizen thereof has an interest in all public propositions. He is, in fact, a stockholder, the commissioners constitute the board of directors, and before they can finally pass upon a measure, it must come under the eyes of the stockholders. The citizen possesses this right of protest as an absolute barrier to the enactment of legislation against public interest. This feature of the government is called the referendum. But the regulation does not end here.

Franchise Put to Popular Vote

"We have made it mandatory for the council to submit, at popular elections, all questions involving the granting of franchises for the right to furnish water, gas, electric light and power, heat or transportation. The referendum is not optional in such cases. We make the council a clerical body to prepare and pass the ordinance to be submitted to a popular vote; they are very careful in the preparation of franchise ordinances to consider public opinion, and recognize the fact that an ordinance, to become of binding effect upon the city, must receive the endorsement of a majority of the electors at the election conducted under the Australian system. So much for the referendum.

"Suppose a matter of great importance comes up, and that the council may not be responsive to public opinion—may not appreciate the necessity of legislation desired by the citizens—if it refuses to take up the issue, the electors are clothed with the right to initiate ordinances, and submit them to the council for approval. In the event of rejection by the council, these measures must be submitted to popular vote. Such a petition must be signed by twenty-five per cent of the voters, in the event the measure is submitted at a special election. Measures may be submitted, under this provision, at the general election upon the application of ten per cent of the electors. We recognize, however, that the chief responsibility must rest upon the council. They are charged with full responsibility, but, if so large an element as one-fourth of the electors protest against their action, the citizens are then clothed with the full right of self-government.

The Recall

"In addition to these measures, we have taken another radical step. That of recalling public officials. If twenty-five per cent of the voters become dissatisfied with their public servant they can demand his recall and the election of another to

Digitized by Google

take his place. This prerogative has been exercised twice in the United States since the measure was devised. Under the Des Moines plan of municipal government, we have, however, recognized the democratic principle as adopted by the New England town-meeting system, whereby democratic privileges are preserved. We elect the mayor and four commissioners by a general popular vote, and make them responsible to the public opinion of the entire city. Under the protest, the referendum or initiative and recall, we give the citizens an opportunity to pass judgment upon all matters of public interest. The five councilmen are, in fact, the selectmen of the town or city, and, under the machinery devised, are just as responsive to public opinion. These five men, without great formality, gather around the municipal table. The mayor presides. They take up public matters under the eyes of the citizens who happen to be present. In that meeting they discuss measures pro and con. Reporters of the newspapers are present. A councilman does not consider his office as his own personal privilege, but recognizes that he is the representative of the people and of the entire public. He wants public approval, not the approval of the ward, but of the entire city, and the result is, that he is stimulated to the utmost to render to the city all of the service he is capable of performing. Under this system we exclude the state and national party from direct influence on municipal affairs, but I do not want to be understood as claiming that the party has not its legitimate province.

"It has been assumed, as it was with us in Des Moines, that public opinion would not sustain so radical a change from the old ward system, or government, to the new commission system, one of an extremely radical character.

"We have demonstrated in Des Moines that good municipal government could be secured, first, by properly selecting a limited number of men, by conferring full responsibility upon these five representatives, and by holding them, by reason of the publicity and other features of the law, strictly accountable for their acts. We feel that, under this legislation, we have restored democracy to the city, and through this restoration, will influence the government of the state and the nation."

Framing California Charters Under Home Rule

H. A. Mason

Mr. H. A. Mason, Secretary of the League of California Municipalities, discussing the question of "Framing Charters under Home Rule," said: "That mysterious person 'Anonymous' can probably be charged with the responsibility of framing nine-tenths of the city charters in this country. However these charters may be incubated, the public is, by the nature of things, excluded from participation in the work; there are no public hearings whereat any person may be heard in advocacy of any new idea or protest against a scheme that is not for the public good.

"The purpose of this paper is to present a view of conditions opposite to this; where the people elect representatives specially to frame a city charter; where they have a right to appear in person or by petition and ask that certain things be done; where the ubiquitous reporter is ever present and each day the citizens may read all that was said and done; where criticism of the work in hand is freely invited; where public opinion is given expression and in the main heeded; where, when the work is completed, the voters may pass judgment on the work and give it their approval or condemnation. And the conclusion that I wish to present to you is that the charters thus framed are, on an average, better productions than those framed by Anonymous; that they represent the advancing (not always the advanced) thought on the subject and to establish the fact that popular government is safer than private government.

"In 1896 a constitutional amendment was adopted which provided as follows:

"'All charters framed or adopted by authority of this constitution, except in municipal affairs, shall be controlled by general laws.'

Limit to Legislate

"The adoption of this amendment stimulated the framing of freeholders' charters. This constituted California's guarantee of municipal home rule. Particular emphasis should be placed upon those words that forbid the legislature to legislate for chartered cities by general law. These words 'except in municipal affairs' limit the legislature, and while it may direct the cities in all matters wherein they may act as agents of the state in connection with a state affair, it is powerless to interfere with the provisions of the charter in matters of local concern.

"Where a city had determined to elect a board of freeholders to frame a charter there was usually a mass meeting at which candidates were named. These mass meetings were invariably non-partisan and candidates were usually selected from various local factions that frequently divide the community. Most frequently the number of candidates selected exceeded the number to be elected that the voters might exercise some choice in the names selected. Thus the board becomes quite representative. The fifteen candidates receiving the highest number of votes constitutes the board.

Digitized by Google

When the Crank Helps

"The personnel of the board is always above the average in intelligence and probity. Usually there are one or two men of strong personality whose thought dominate the board. Frequently there are some members who have given time to the study of municipal questions. In our university towns professors have been members of the board. As a rule, however, the members of the board, while good citizens and worthy men, have a profound ignorance of municipal affairs. To their credit, however, be it said their judgment conforms to those who are recognized leaders. Occasionally the so-called crank appears, with one fixed idea. By his persistent efforts that idea gets into the charter, sometimes to its advantage. Really, our substantial progress is due to this one circumstance—a progress that cannot be made in any other way.

"The board of freeholders having organized, the early practice was to divide the work of framing the charter among committees, but more recent charters have been framed under an improved system. There are no preliminary committees. The plan is talked over and first determined as a whole and the work of writing out the various provisions is delegated to a few members under specific instructions. In some instances a single expert has been employed to do the writing and to advise the board. The results in such cases have been good and the practice is to be commended. All charters are to a great extent copies of others already existing. But nearly every charter contains variations, and the process is one of evolution toward perfection.

Values of Publicity

"All meetings of the board of freeholders are open to the public. Stated meetings are held to receive the views of the public. The press is represented and the public is informed through this medium of the progress of the work, which is criticised as it goes along. This system of publicity brings out new ideas and enables the freeholders to measure public opinion and avoid errors. The charter therefore becomes an expression of democracy.

"We are now in a position to measure the accomplishments of thirty years of popular charter making—the application of the principle of democracy to legislating for the cities. There is no constitutional limitation to the powers that may be exercised by cities to manage municipal affairs. If the charter contains no specific grant of power to do a thing which the municipality desires, it can be easily secured by amendment. The California municipalities, with but few exceptions, have full powers to acquire and operate any public utility, water, gas, electricity, telephones, street railways, etc.

"They control their water fronts (except in San Francisco, where it is under state control), and may construct wharves, and regulate tolls. One recent charter provides that the city may construct landing places for air ships.

"All cities can regulate the prices charged by public utilities under private ownership, though not always successfully.

"They exercise quite complete control of their streets and public property, may or may not grant franchises and the restrictions upon absolute freedom of actions are those contained in their charters, which may be easily removed by amendment. They are free from any possibility of 'ripper' legislation, and their entity cannot be destroyed.

Initiative and Referendum

"The first provision for direct legislation was contained in the San Francisco charter adopted twelve years ago. Every charter since then has provided for the initiative and referendum and many of the charters theretofore adopted have since been amended so as to include similar provisions. Only about six cities in the state are without the features of direct legislation. The recall was first incorporated in the Los Angeles charter in 1905. Every charter adopted since then has copied this provision, and several cities have incorporated the scheme in their charter by amendment. The last legislature which was of the kind known as 'progressive,' provided the initiative, referendum and recall in the municipal corporation act so that the small towns organized thereunder, about 150 of them, now have these powers. Less than ten cities in the whole state are without the recall. There is no sign of reaction from this progressive step, and it can now be considered as a permanent institution in California.

Partisanship Eliminated

"Responsive to a popular feeling that national political parties should not control in matters of local concern, the California charters have practically eliminated all partisanship in municipal affairs. This has been brought about by forbidding the printing of any political designation on the ballot in connection with the name of a

Digitized by Google

candidate. The charter of the city of San Jose in 1897—fourteen years ago—was the first to adopt this provision, other cities following from year to year, until now political nominating conventions for municipal officers are held in only two cities in the state, and even in those political names have lost nearly all of their significance. The most complete reform scheme for municipal elections is that adopted by San Francisco, by charter amendment last November and approved by the legislature in February of this year. The first election under the plan is now taking place. By the way, this charter amendment was proposed by the initiative of 15 per cent of the voters.

To Become a Candidate

"The scheme briefly is this: Any qualified person may declare himself to be a candidate for any office; in addition he must secure the endorsement of not less than ten nor more than twenty voters called sponsors. These sponsors appear before the registrar of voters and make declaration under oath that they believe the candidate is qualified mentally, morally and physically to perform the duties of the office. His name appears on the ballot without any designation or descriptive matter. In printing the ballots the names are first arranged alphabetically, and then rotated, a change being made for each assembly district. A name (or group of names if there are more candidates than there are assembly districts) is taken from the bottom and placed at the top. This gives each candidate an equal advantage of having his name at or near the top of the list.

"In the absence of all party platforms, each candidate is permitted to write his own. For each 100 words he pays $20, and for each additional 100 words $10, not exceeding 300 in all, and these statements 'of the reasons why he should be elected' are printed at public expense in pamphlet form and mailed to the voters before the day of election.

Majority Election Plan

"An election is held on the last Tuesday in September. This is called a primary election; but if any candidate receives a majority of the votes he is declared elected. If no selection is thus made another election is held forty days later at which only those two candidates for each office who receive the highest votes at the primary election are voted for. This plan is called the majority election plan, and eliminates government by minorities. This plan was first adopted in Berkeley in 1909, and has since been adopted in San Francisco, Oakland, Vallejo, Modesto, San Luis Obispo and Santa Cruz. Palo Alto and Richmond have a similar scheme except that no election takes place at the primary. It is predicted that the plan will soon become general throughout the state.

"You can readily see that this scheme practically eliminates the political boss from manipulating local politics.

Moral Effect of Provision for Recall

"One of the immediate effects of the referendum and recall plan is to create in the public mind a greater feeling of confidence in the integrity of municipal officials. The presumption has gained force that with the possibility of a recall an official will not be apt to betray public confidence. This has led freeholders in framing charters to remove the ristrictions that frequently hamper the freedom of action necessary to secure high efficiency. So-called red tape can be dispensed with and the scheme of providing checks and balances as a preventative for misconduct can also be dispensed with. The importance of this reform should be apparent to all, as it tends directly to economy and efficiency.

"The feeling that public officers are to be trusted further operates to provide them with longer terms, so that, having once acquired experience in the management of municipal affairs, they may be retained for the longest time possible that the public may be benefited by such experience. The later charters in the state provide for terms of four years and in two instances the terms of the councilmen are six years, one-third retiring each two years, thus making the council a continuous body and placing it in a position where it can carry out a definite policy continuously and without having it interrupted by a sudden change of administration. I believe that this reform will be productive of great public good.

"Where a long term is provided—say four years—the short ballot plan is easy of adoption by providing that one-half of the officers shall be elected every two years. This plan has been adopted in San Francisco, with the result that hereafter the numbers of the offices to be filled at one election has been reduced from thirty-two to sixteen. In the more recent charters all administrative officers are appointed, instead of being elected, the voters only choosing members of the legislative body and mayor. In two cities—Richmond and Palo Alto—the council appoints the mayor

Digitized by Google

from its own body. Under the latest form of charters from three to five officers only are elected every two years. The ward system, with all its attendant evils has been practically abandoned by the cities of California.

Reason for Absence of Civil Service Provisions.

"Only the two large cities in the state have civil service provisions in their charters. The small cities do not find it necessary. Even in San Francisco and Los Angeles there is a strong feeling that the prevailing civil service scheme has nearly outlived its usefulness. It has been useful in breaking up the spoils system. Public officers are beginning to learn that efficiency in the performance of duties is the best means of securing re-election, and that efficiency should be the sole test when making appointments of subordinates. It is only the old machine politicians who cling to the system of rewards for political work. The most efficient departments in San Francisco are non-civil service; more so than those under civil service.

"Nearly every charter contains restrictions upon the granting of franchises, and the tendency is to make those restrictions severe—so much so that complaint is made in certain quarters that it no longer pays to get a franchise. In one town franchises are granted only on a referendum—and in others an optional referendum is expressly provided. In the large cities terms of franchises are limited to twenty-five years. These restrictions are the result of popular demand and the ease by which popular demand finds response in the actions of public officers.

One Step Beyond Commission Plan

"San Diego, Berkeley, Oakland, Santa Cruz, Vallejo and Modesto have commission government. Other cities are considering a change to this form, and others are waiting for something better. One city—Richmond—has a charter so framed that at any time it may put its entire city government—outside of the legislative branch—in the hands of one expert administrator. It is waiting for the expert to appear and take the job. As I had a hand in framing the charter, naturally I feel that it is an advance beyond the commission plan.

"In matters of local taxation California cities do not have home rule. We are tied down by constitutional provisions to the ancient system of a single general property tax and to licenses. We are now about to undertake to secure absolute freedom in taxation.

What California Claims for Home Rule

"As a result of the framing of city charters under the California home rule plan during the last thirty years I claim:

"1. That we have eliminated partisan politics.

"2. That we have put the local boss out of business.

"3. That we have placed our city government in a position where efficiency counts more than anything else.

"4. We have established the principal of democracy in city government, and that democracy is becoming efficient.

"5. We are educating our citizenship to take an interest in municipal affairs, and have placed within their hands the means by which their views may be reflected in the government that is returned to them. The cities with freeholders' charters have a population of more than half that of the state."

Woman and the Municipality

Mrs. Mary H. Wilmarth

Mrs. Mary H. Wilmarth, President Woman's City Club of Chicago, and chairman of the session, said on the subject of "Woman and the Municipality": "The welfare of the city equally concerns all its inhabitants, men, women and children, perhaps most of all, the children. We know that women have led armies, Boadicea and Jeanne d'Arc, and they have been counsellors for popes and sovereigns and statesmen. As Catherine of Sienna, they have ruled over empires and kingships in Europe and Asia, but those are exceptional, individual cases, and represent either the incident of lineage or one of unusual endowments. Women in general have had in the past but little knowledge of the conditions of the city, except such as constitute their own environment, and they have had a correspondingly languid interest in the subjects which relate to it, and they have had only a desultory share in the efforts which make for city government.

Digitized by Google

"There is perhaps nothing which marks more decidedly the forward movement, the modern movement, the movement of modernism in those affairs, that movement towards the social ends, than the position of women in relation to civic affairs, and this is instanced by the growing intensity, or rather we might say that enhancing growth of her intensive interest, and the transferring of it into an extensive interest, as is evidenced in the effort of the woman's clubs and other organizations in their arrangement—their carefully arranged program and the direct effort towards the civil betterment.

Ornament Becomes Service

"Another thing is the transforming of the accomplishments which have been used for social ornaments into social service. A gift of languages, for instance, which has been a delight, allowing people to read their Homer in the Greek and their Dante in Italian, may be turned into social purposes. The Chicago Woman's club has appointed a woman who speaks six languages as a sanitary instructor in the districts of Chicago where there are many foreigners, and she has been giving instruction in the care of their children, their waste and their garbage. Other women who have an interest in these things are turning their attention to how garbage shall be disposed of most economically. Women who have been in the habit of going abroad to find what was in the art galleries and to admire the beautiful architecture, we find them going to investigate city government, or to find out how they are treating their funds in charities, in insane asylums, and the consequences which come from sulphur and white lead. It makes another object for the journey abroad, and we hope they enjoy the beautiful things none the less. Something of that I think we shall hear today from Miss McDowell. Then as to the charities and corrections, Miss Lathrop will speak. The government has had wisdom enough to employ her, and she has gained much painful knowledge, but it is useful knowledge, and she I think will tell us that the more correction is used, the less charity will be needed—Mrs. George Zimmerman, of Fremont, Ohio, a delegate from the Federation of Woman's Clubs with its many ramifications."

Work of Federated Women

Mrs. George Zimmerman

Said Mrs. Zimmerman: "About a year ago I was appointed vice-chairman of the civic department of the General Federation of Woman's Clubs, an organization strong, powerful and efficient in the progress of civilization. This organization has been the means of interesting thousands of women in current vital subjects, the study and consideration of which, aside from the vast amount of work which they have accomplished, makes for better living, better citizenship and for improvement in our civil, our social and our educational institutions. As has been well said of this great organization by one not a member, the development of the woman's club is truly a marvellous thing. It is a case of spiritual evolution, in which a small and personal motive has been transmuted into a great altruistic force.

"The general federation now has a membership extremely large, extending over the whole United States. Each state has its own organization, and these state organizations, in addition to clubs in Alaska, the Canal Zone and Cuba, and the clubs in various foreign countries, constitute the General Federation of Woman's Clubs, having a membership of eight hundred thousand, with the motto 'Unity in Diversity.' In addition there are seven national organizations of women affiliated with the general federation, making an association of all organizations, having a tremendous influence. That this influence is not merely nation-wide, but world-wide, may be realized by the fact that you may find federation clubs in Mexico, South America, Canada, England, China, India and West Australia.

General Federation of Women's Clubs

"The work of the federation is carried on through eleven departments: art, civics, conservation, civil service reform, industrial and social conditions, education, home economics, legislation, literature, labor inspection, music and public health. This list well indicates the various public activities in which the federation is engaged. I think that I may say without being accused of prejudice or over-enthusiasm or undue partiality, that there is a greater and more wide-spread interest in the work of the civic department than in any other one department of the general federation. I would say, though, in this connection that in local work, public health should come under the heading of civics, although in the work of the general federation it is classed under separate departments.

Digitized by Google

"The work of the civic department has a two-fold purpose: First, to educate all women to a sense of their civic responsibilities; second, to unite all women in an intelligent organized body of public opinion, that highest tribunal of the American people, which shall be so reasonable and yet so truly representative in its demand for general betterment, that it cannot fail to compel attention and to secure results. This department also emphasizes to the woman's clubs throughout the country the necessity of the careful study of civic conditions, the fact that you ought not to offer criticism or suggestions in civic affairs until you are thoroughly well informed. It is necessary to impress upon women that they must only undertake work which is fitted to, and necessary for the local conditions. A woman in a small town reads of the wonderful work being done by the women in cities, and it naturally appeals to her, and she feels that something of that sort should be done in her town, when there is no need whatever for such work.

"This same applies right through in all matters of civic work. The matter of city beautifying must be carefully studied, consideration must be given to the topography, the climate, the genius of the people, the material which the architect and the landscape expert have to work with. What may be an adornment in one city, when transplanted to another may become a disfigurement.

Civics Is Simply City Housekeeping

"Civic work in the woman's clubs possibly began with the desire for greater civic cleanliness, for clean and orderly conditions, and with the ugliness and unsightliness which is so deadly characteristic of our American cities and towns. I think that we are all more and more coming to realize that a beautiful environment has a highly educational value; that it is also a source of patriotism, that it contributes to patriotism, for every beauty which a city possesses, endears it to its inhabitants, and this is especially necessary in a country such as ours, whose population is continually being fed by people of foreign countries. But we have come to learn through our work that we need all of these things, civic beauty, civic cleanliness, civic order, and we may have learned through the civic work that civics is simply city housekeeping and managing on a larger scale than the home, and they have come to demand that the beauty, that the order and the economy—that is a good point to emphasize—that the economy which marks the home shall be the type of the community life. They have learned that civics concerns all the people all the time; that it is truly a home propaganda. In short, civics has become the gospel of the woman's club. Mrs. Decker well expressed it. She says: 'The woman who has come to prefer Doing to Dante, and Being to Browning, will find in civics a field close at hand and crying to be tilled.'

"In spite of the growing and widespread interest in the public activities of the general federation, we find by statistics that there are really a larger number of women who are interested in self-development and in self-culture than in these public activities; but if that woman who is interested in these affairs, simply in self-culture, would simply realize that in no better way could she obtain the culture which she seeks than by an interest in civics and home economics and public health and civil service reform and conservation, I am sure that the influence and the force and the power of the federation would be so wonderfully increased that we surely would effect a great transformation in the affairs of this whole country."

The Chicago Plan

Charles H. Wacker

Charles H. Wacker, chairman of the Chicago Plan commission, presiding at the meeting of the section on city planning, said: "It has been well said—'The city is strategic. It makes the towns; the towns make the villages; the villages make the country. He who makes the city makes the world. After all, though men make life, it is cities which make men. Whether our national life is great or mean, whether our social virtues are mature or stunted, whether our sons are moral or vicious, whether religion is possible or impossible, depends upon the City.'

"At the time of the civil war only three per cent. of the population of the United States were living in cities, while, at present, forty-two per cent. are living in cities, and approximately ten per cent. of the entire population of this country in three cities, Chicago, New York and Philadelphia. In the past, the problem confronting the people in our rapidly growing cities was to provide pure water, adequate schools, and public institutions for both the sick and the improvident.

A City's Foremost Problem

"The problem of our great cities to-day, and for generations to come, is, and will be, to provide light, air and ample means for healthful recreation; to eliminate, to the

Digitized by Google

greatest possible degree, congested districts which are the hot-beds of vice, sickness and misery; to furnish ample means for healthful recreation; to create better transportation facilities to the multitudes congregating in our cities; better accomodations for housing the poor and more attractive and healthful surroundings generally, now more essential than ever before, with the concentration of the population in cities, because we know that the physique of the city dweller is degenerating.

"The importance of city planning cannot be overestimated and the truth of the statement that, 'If we want such substantial things as health, wealth and joy, if we want the equally indispensable element of beauty in our daily lives, if we want to avoid waste of time and money, we must find ways to avail ourselves more fully of the incalculable advantages of skillful city planning.' We have reached a stage in our social development which again clearly demonstrates that better surroundings, better utilities, better public improvements, and more comfort will follow in the foot-steps of increased commercial activity, and increased wealth, and we should therefore, mature our plans to meet and direct this development. For these reasons, the value to mankind, of an International Municipal Congress and Exposition, such as this one cannot be over-estimated.

Without a Plan a City May Become Everything That It Should Not Be

"Without a plan, a city is like a ship without a rudder. In a country governed as is ours, the public must be enlightened and must be made to understand the value of city betterment. They must be made to clearly realize the fact that the stability of our democratic form of government will depend largely upon a national sentiment for civic betterment, morally and physically. Agitation in favor of intelligent city planning must be kept up until each individual realizes his own responsibility in matters of this kind, and until public sentiment has been crystallized into an irresistible force, demanding action upon the part of the properly constituted authorities.

"Believing that you might be interested in knowing how the Chicago Plan was created, I will undertake, in a very few words, to give you its history. The work of making a comprehensive plan of building the Chicago of the future was first undertaken by the Merchants club of Chicago in 1906, and was continued by the united Commercial and Merchants clubs. Over four years have been devoted to the preparation of the plan of Chicago. No money has been stinted, the best expert talent obtainable has been at work upon it; and behind this plan, giving the money, time and thought to it liberally, stood, and still stand, not dreamers, but many of our foremost business men.

The World's Most Complete Plan Book

"The result of these efforts is presented in the book called the 'Plan of Chicago,' known the world over as the most complete, comprehensive and most beautiful book ever published anywhere on city planning. This book was presented to the mayor of Chicago with a suggestion that the city council of the city of Chicago be requested to authorize the appointment of a commission, the purpose of which is fully, clearly and concisely set forth in the Mayor's message to the city council on July 6, 1909. The last paragraph of this message contains the following:

" 'Therefore, I respectfully recommend that your honorable body (meaning the common council) authorize the mayor to appoint such a commission, to be composed of members of your honorable body and citizens, whose duty it shall be to take up this question to the end that the whole city and all elements in it may be fully informed as to what is contemplated in this plan for the future, so that an official plan of Chicago may be produced that will have the endorsement and support of the entire municipality.'

"What is the object of the Chicago plan?

"First, the object is to direct the future growth of our city in an orderly, symmetrical and systematic way, so that Chicago may attain a metropolitan character, and may retain her position among the great cities of the world.

"Second, the object is to educate the people to realize the importance of city planning, and demonstrate to them that city planning is basic, for and co-related with, better conditions, both hygienic and aesthetic.

A Plan for the Whole People

"Third, the object is to adopt a scientifically and carefully worked out plan which is not to be changed in its essentials. It is obvious that hygienic measures must keep pace with the steadily advancing knowledge, resulting from scientific research, and that, upon the firm foundation of a sensible and practical city plan must be built further, by the adoption of such hygienic and philanthropic measures as our changing

Digitized by Google

conditions may demand, from time to time, and as scientific research and our constantly advancing knowledge of human nature and human needs may prescribe.

"Fourth, the object is to provide a plan for the whole people, and particularly for those who cannot afford to go elsewhere in search of recreation.

"Fifth, the object is to re-claim for the people, the beautiful shores of our health giving Lake Michigan, and give them more convenient, and more direct transportation thereto, in short, to make our city more healthful, more comfortable and more attractive.

"Sixth, the object of the Chicago plan is the re-arrangement of streets, arteries of traffic where that is demanded by intolerable conditions of congestion or inconvenience.

"Seventh, the object is to lay down, along proper lines, for the growth of the city, park areas, small parks, play grounds, bathing beaches, recreation piers and boulevards.

To Capitalize a City's Higher Resources

"Eighth, the object is to capitalize our luxuries, our conveniences and our attractiveness.

"Ninth, the object is to teach the people that delay will make the execution of many of the important and now feasible features, infeasible, the practical impractical, the possible impossible, the economical extravagant.

"Tenth, the object is to convince the people that, aside from its aesthetic and hygienic value, the development of our city, symmetrically and along well planned lines, will produce an actual commercial asset of incalculable value to every citizen, be he rich or poor, and that we cannot afford to grow in a haphazard, disorderly and wasteful manner any longer.

"In this work, of such moment to the future welfare and happiness of the citizens of Chicago, I am glad to say that we have the aid and advice of the Hon. Carter H. Harrison, mayor of the city of Chicago, and his entire administration.

"In closing we will quote Dr. Charles Eliot: 'Finally, if the democracy of a great American city can comprehend and appropriate such a beneficent project as this 'Plan of Chicago,' when put before them by a group of unusually intelligent and public-spirited private citizens, and can then get it well executed with promptness and prudence, it will be a good omen for the perpetuity of democratic institutions. The many will then have shown a capacity for sound progress which most social philosophers have thought was to be expected only from the select few.'"

How a Woman Runs an English City

Miss Mary McDowell

Miss Mary McDowell, head resident of the University of Chicago settlement, and recently returned from a tour of sociological study in Great Britain and Europe, said: "I am rather confused and embarrassed. I did not know that Chicago had become so advanced that they questioned the rights of the feminine creature to milk cows. (Laughter.) I have just been going through several great German cities and Belgium cities, and the question what is the feminine duty, what is her occupation is very very uncertain, I can tell you. I saw her in various curious occupations. I saw her in artistic cities doing very well the operation of switching street cars from one track to another, with a little official hat with a little feather up in the back, rather prettier than most of our hats, and altogether she seemed quite remarkable. Then I saw her as the lady mayor of Oldham, a woman so magnificent in her dignity and graciousness, so intelligent a woman, whose whole fortune had been made in that ugly little center of the cotton industry, Oldham. When her husband died and she was able to leave this ugly place, as most people who got rich did always, instead of herself and her two daughters deciding that this was a chance to go abroad and live somewhere and cultivate themselves they said: 'No, we belong in Oldham, Oldham made us our money, the people in Oldham, 147,000, most of them weavers and spinners, and we belong to them.' They did not say it in an assertive way, they said it very, very simply to themselves and stayed in Oldham.

"Why Not Make Her Mayor?"

"Pretty soon this gracious woman with the beautiful place—she had a beautiful park, the only really beautiful spot at that moment when she became city councillor, said, 'I thought I could best help the city by becoming a city councillor, so I contested the seat and I was elected by the slightest margin, because a woman had never offered herself in Oldham before and because I believed in public free schools for the children, not parish schools.' Well, she was elected and she behaved so

Digitized by Google

well, this woman, that they never let her leave. She has been city councillor right along, and then what did the weavers and spinners do in that town? They have a way over there that I think is such a good way. Everybody in town who wants to bring up something before the public, writes a letter to the newspapers. Sometimes they are very foolish, but on the whole it is the way they have of presenting a matter constantly. The working men and women vote in Oldham—not all the men and women, but the householders, and they kept presenting this matter: 'Mrs. Lees, the city councillor, a woman, cares more for the city of Oldham than anybody else in town. Why not make her mayor?' And the result was that the city councillors, who had the right to elect her as mayor, could not stand it after a while, this public opinion pressing on them, and Mrs. Lees was elected mayor, and she took her seat last November.

How She Handled a Strike

"Then the whole question was, 'How would a lady mayor act under an industrial revolution?' 'How would a lady mayor act under such conditions?' I was at Manchester, shut up for a week because of the tremendous industrial upheaval in England —all the railroads stopped, all the railroad stations shut up. Soldiers were brought in in the course of the railroad strikes, because some people thought they needed to be protected. They did in Liverpool, they did not in Manchester. The municipal trams were on a strike in Oldham, the teamsters were on a strike in Oldham. The lady mayor had three great tremendous strikes in her town of Oldham. What was she going to do, because of course a woman cannot fight, she cannot come out as a soldier or do public or policeman's duty. She did just what an intelligent woman would do. She sent for the strike committees, and they came to her, and she sat down and talked with them, and she settled every strike. No military was called, and no violence was committed in that town. Because of these strikes of weavers and spinners the mills had to be shut down, and the streets were filled with these men and women who were from the mills and yet no violence. And this gracious lady mayor after thirteen hours said very simply: 'At first we were a little cross, but after a while we laughed together, then we settled it.' (Applause.) It was all so human and so sensible, and the lady mayor drove the first electric car out of the barn and took it through the town. (Applause.) Well now, perhaps that is not a feminine function. (Laughter.) I have do doubt there are people who would think that it was not.

Beautifying an Ugly Town

"Now, Oldham is the ugliest place you ever saw in your life. Every house is exactly like every other house, every street is exactly like every other street, and the whole town is made up of little boxes with little chimney pots on top, wreathed with smoke from the textile mills, great smoky looking things, much more smoke than we have. I never saw such ugliness, and yet Mrs. Mary Higgs, who has been over to see us once, a wonderful woman, simply had the idea that ugliness was temporary and you just must not have it, you have to keep saying it, and what did she do? She did a very simple thing. Mrs. Lees backed her up with money and help, and Miss Lees did the same thing, and they organized a city beautiful Oldham society, doing very simple things. They thought in that town that flowers or trees could not grow because of the awful smoke, and it was very difficult. Now there are some beautiful back yards and there are some window boxes, and best of all there is just on the edge of the town a beautiful garden city suburb, the houses built under the co-operation of a corporation made up of working people and Mary Higgs, and some of the others, which is just as attractive and pretty as it can be. It was such a new idea to the people of Oldham that they said: 'Why, look how they are throwing those houses around just anyway,' because they usually get them in straight lines; but there was a place to put down a garden in front and a garden in the back, and the streets were not straight. That seems to me so suggestive to us in this great city of ours. What is our business, we of the City Club? Well, it is to get a vote some day of course. (Applause.)

No Town Need Have Bad Odors

"In the first place, some of you do not agree with me, but we must have it. This lady mayor—I said to her: 'You have the municipal vote?' 'Yes.' 'Do you believe in the parliamentary vote?' 'Well,' she said, 'doesn't it seem rather ridiculous? I received votes as mayor of the city for the parliamentary office, I hold the money through the election, but if there is a tie I cannot vote on the tie, it has to be done by somebody else, a man must come in from somewhere and vote to make it legal, so that you can see how ridiculous it is and an Englishman hates to be ridiculous.' (Laughter.) So you see I believe in that part of it, but in the meantime we must do what Mary Higgs did, and what Mrs. Lees and Miss Lees did. They just impressed all the time

Digitized by Google

in an educational way on the people that Oldham need not be ugly and it need not be invaded with smoke, and it need not have bad odors at all—please remember that, it need not have bad odors—and they have come along now until there is a beauty spot in Oldham.

Symbolism of a Garbage Crematory

"Now, I could tell you a lot of other things that I am just aching to tell you—oh, the most delightful stories about garbage (laughter), artistic stories, actually, the element of beauty in the whole thing. Yes, I must tell you a little bit of that. In Frankfort, I found the very best garbage system, and the best bit of architecture, where they burn it. I tried to get into this place, expecting, of course, something dreadful to meet me, but here above the entrance was a mural painting, not very beautiful—they said the French laughed at it gayly—I laughed, too, because it struck me as very funny, but at the same time it was full of significance. It was the old, old legend, of the woman with the mill, I believe they call it, where the old women go through a mill and come out perfectly young and beautiful, and so this is put up there as a symbol that there is nothing ugly that cannot be made beautiful and pure and clean, all made new by science. There were roses growing outside of that building, beautiful roses growing outside of the garbage plant, odors not at all perceptible, because the intense heat burned them all up, and then they are **verboten.** (Laughter.) That settles it in Germany, forbidden. That is all. I might say that when they are burning up these odors they are burning up a lot of good things that our packers would not burn up, and which should not be burned up. They should not burn up any things that could be made something else, but they have not got to that yet, so they just say 'no odor,' it is forbidden, and so they do not have them. They do put them sometimes out of town, but not in the city."

Charters

Miss Julia Lathrop

Miss Julia Lathrop, of Chicago, formerly of the Illinois State Board of Charities, and resident of Hull House, Chicago, the world's greatest social settlement, said on the subject "Charities": Women have come into the field of charity as householders and housekeepers, and they have brought into charitable activity those standards of cleanliness and moral and physical health which every good housekeeper has in her own house, and they have very naturally taken first, as their responsibility, the care of little children, destitute or neglected. The effort to understand and supply the needs of these children has led far from a simple asylum or orphan's home or creche.

"Throughout this country, as in our own state and city, women have been active and influential in the creation of what we know as the juvenile courts, and these courts have proved invaluable, not so much because they have invented a new way of providing for the child who is in trouble, as because they have compelled the whole community to gain a conception of the neglected childhood which exists in our midst, which before we neither measured nor imagined, which now, at least, we are compelled to see, as the sad procession passes, day by day, through one court room. To the task of equipping that court, the men and the women of Chicago have brought all the wisdom and all the skill and all the generosity of purse and mind which they could command, and while it has many defects, while its home on Ewing street has many defects, yet we are told by some of the best national authorities on juvenile courts that, on the whole, it shows more of what the true spirit of such a court is, there is more that has been worked out for the real welfare of the child than has thus far been gathered together elsewhere; for, from the first, it has been the effort to supplement the mere judicial machinery by such humanizing contrivances as could be brought to bear.

Chicago's Juvenile Court

"As you know, there is a detention home, which is no longer a jail, but a modern institution in the charge of a trained woman superintendent. There is a school, not a private school, not a jail school, but a public school, for which the board of education of the city of Chicago is responsible, so that children in the detention home go to school daily. There is not a child who comes there who is not carefully examined by physicians and nurses, first, for the obvious reason that his companions may be saved from infectious diseases, and, secondly, that his own defects may be understood and their bearing, if any, upon his delinquency. For instance, if he is a runaway because he could not see the blackboard or because he could not hear the teacher, the relation is clear and a remedy is apparent.

Digitized by Google

"And there is, what has no parallel in this country or in any other, the office of Dr. Healy, head of the Juvenile Psychopathic institution, a trained specialist, whose time is devoted to studying the physical defects which may have a bearing upon delinquency. This institute is supported by Mrs. Dummer and a few others, and its services are freely offered to the juvenile court. Its work is not an academic study which has no relation to the child who is studied, and which is to result in great statistical report years hence when the children who are studied are either in penitentaries or graves, or reformed automatically, but, while it is exactingly scientific, it is so conducted that every day Dr. Healy is able to recommend to the court something to be done for the especial and particular boy or girl examined.

Caring for Dependent Girls

"Now, it is very hard to get all these things done which are recommended. We are very envious of parts of the world which can talk about the overlapping of charities. Here we pull the blankets over hard, and there are still great empty spaces between them. It will be a long, long time before charity overlaps in Chicago. Some things, of course, have been obvious in that court, some things that were especially urgent needs, and one of them has been the care of dependent girls, and a group of women, many of them members I think of this very club, a few years ago, took the relic of a well-meant, but hopelessly feeble effort, and instituted afresh a school for dependent girls, and built at Park Ridge an institution which is now known as the Park Ridge school. For that school, these women went up and down the streets of Chicago and begged money for the buildings, and clubs and private donors gave funds, so that at present there is a plant, as we may call it, including the farm of forty acres, which, so far as I know such institutions in this country or elsewhere, is certainly as good a plant as exists in the world. (Applause.)

"It is good, not because it is beautiful, not because it is well equipped, although it is both, but it is good because the effort that has been made there has been with a view of giving to the girl who comes there the sort of education which will make her a better girl. If people go wrong in this world, when we come down to analyze the reason, it is because they like going wrong for some cause or other, or because they can not go right, because they do not know how. So, if we are really going to help young people fundamentally or give them backbone enough to help themselves when they are grown, we must give them good tastes, tastes for pure, clean, decent living, and then we have got to teach them some means by which they can honestly gratify those tastes. That is about what education means for anybody. It is not altogether an easy thing in the noblest homes, with the noblest families, and the most decent school. It is a very difficult thing with children who have already suffered from family neglect or misfortune which brings them to a place like Park Ridge.

No Corporal Punishment

"So this school has taken advantage of the experience of the wisest and best people in this country, and in every country, and has tried not only to teach the children to read and write and spell and learn their lessons out of books, but also to learn other lessons by the care of fruit and vegetables and flowers and cows. Perhaps it may not be unseemly for me to mention here that there has been, of late, a good deal of comment in the papers—a good deal of comment and criticism about this school. Some of the attacks have opened disputed questions. I shall not try to deal with any of those, but I shall venture to mention some undisputed things.

"I think it is undisputed that corporal punishment is not allowed there. The old era of beating is over. I have often thought that beating is a very primitive means of discipline, and that probably, if all the people in all the penitentiaries in the world could have been made good by beating, there would be few of them there. It is the one form of discipline which the most simple-minded people understand. So it was felt that beating had probably been tried with most of the children who were at Park Ridge, and that something else should be tried and so, apparently in accord with the belief of the trustees, the discipline of separating a disobedient child from her fellows was used, instead of blows. Whether the so-called dungeon was a dark closet or a light room, is in dispute, and hence I do not mention all this.

"The women who have made Park Ridge, who have given priceless time and effort to its development, may have permitted some inaccuracies of accounting that amount to a technical error, but when we are authoritatively told that, in addition to all that the county pays for the county wards, they are compelled to solicit from charitable people of this town, several thousand dollars in addition, in order to pay the annual bills for the county wards, the error becomes the sort of trivial technicality which you remember President Taft condoned the other day in the case of that honest guardian of the peoples' right to pure food, Dr. Wiley.

Digitized by Google

Charities Must Be Taken Out of Politics

"When this attack goes by, when the people who are responsible for Park Ridge must go into the community more or less discredited, because the headlines of the great, popular, morning papers carry a conviction which the column of carefully written material underneath does not carry, I think women must join in that protest which has been made, again and again, this week, I am sure in speeches in the hall across the way, that the national political parties are now alien to local civic interests, and that, somehow or other, we must invent a way of managing charitable institutions which will be independent of that which we now call politics.

"True publicity can only aid any sort of public or civic institution, whether it is a charity or whether it is a street-cleaning office, or whatever it may be, but the attack which is made to create political capital, or which bears that impress, even if not intentionally made with that end, is a malicious and wanton injury to public and private rights. It unfortunately cannot be met directly, nor can there be any complete remedy for it, once made.

"Some of us are disappointed that the difficulties in our public and semi-public charities have not been cured by what we call civil service reform. Some of us have dealt in a gentle, feminine way with the civil service reform in the state of Illinois, for years past. Reforms have been secured, but we have found that the merit system is administered, in the long run, by the final authority of executives who were bound first of all to the success of a national party, who, even when acting in good faith, are seriously hampered in any large consideration of a merit system by that fact.

Defects of the Merit System

"We are yet in the experimental stage of a merit system. All of us know of instances in which the merit system has not been used to secure merit, but to protect demerit. For a generation, the places of this state, either financially or through examining or supervisory power, have relation to all of our private charities, as well as to the administration of the system of public charity, have been used for public advantages, so that we, whenever the merit law begins to operate, sweep into office, under the protection of the merit system, many unsuitable people. This is a penalty for our own previous carelessness and lack of attention, but the penalty is paid by sick and helpless public wards—not by us. It is sad but perfectly true that a merit law can be so used, and has been so used, as to be no better than the fence of a thief, a protection to unsuitable officers against whom it was not possible, technically, to get just the sort of charges which would result in a discharge before a board, which, for political reasons, might wish not to discharge.

Combination of Public and Private Charities

"If there were time, I should like to say something about what seems to me the difficulty of the combination between public and private charities, which we have in this state, a combination which is expressed chiefly by the industrial school acts, laws which grant to any school created under those acts, large sums of public money for the maintenance of the children. Such schools are Feehanville, Glenwood, and the Park Ridge school, and many other smaller schools throughout the state. We are running a great danger in the state of Illinois of that same sort of a subsidy system which, I think, if there is a New Yorker or a Pennsylvanian in this audience, we should be solemnly warned against him or her as having been most ruinous and most costly in the states where it has gained headway. If there is going to be a system of subsidies, then certainly the state or county or city has the right to standardize the institutions, and to say what must be done in order to receive a subsidy.

"England, for a long time, has paid grants in aid to certain schools. Matthew Arnold earned his living going from one school to another and deciding whether the teachings and the methods of that school were such as to justify a grant. In the opinion of many people, it is a bad system there; but good or bad will you tell me where we have any gentleman of the type of Matthew Arnold who would be willing to engage in the service of going about among our schools and institutions and putting that fine sort of intellect to the question of discriminating as to how they should be carried on, and whether they reach a certain standard? And yet Matthew Arnold was not too good for that task. This is another difficulty, the people best qualified for public service are not attracted to it, because the popular opinion is that the tenure is political at bottom, and that the merit laws are ineffective.

The Liquor Interest

"We are confronted with the bewildering connection between officials and the most dangerous elements in this community. Think what it means in our juvenile court, in

Digitized by Google

the court of domestic relations, in the record of every charitable and philanthropic society in this town, the connection between official matters and the liquor interests. The court of domestic relations will tell you that ninety per cent of their cases come from liquor. The Juvenile Protective association will tell you that eighty per cent of their cases are traceable directly or indirectly to liquor. Is there a mayor in this country who is not elected either with the aid or in despite of the liquor interest? It is never quiet, never idle, it is never indifferent. It wants its business protected. Its relation to politics, through which it seeks protection, its connections with the business of gambling and the business of prostitution, its insidious power over the police all have been known and tolerated until righteous indignation has soured into popular cynicism. One of the most difficult things to do, but as necessary as it is difficult is to replace cynicism with vigorous confidence that the management of cities, including their great charities, can be made nobly effective."

Digitized by Google

Municipal Accounting and Efficiency

Lack of Standardization

Herbert F. Sands

Mr. Herbert F. Sands, director of the Chicago Bureau of Public Efficiency, as chairman of the section of municipal accounting and efficiency, said: "There has been a considerable literature developed on the subject of municipal accounting in the last ten or twelve years, due to the work of the League of American Municipalities, the American Municipal league, the United States Census bureau, the Association of Comptrollers and Accounting Officers. Many papers have been produced and discussions had on this subject of municipal accounting. Within the last two or three years the word efficiency has become a slogan in both private and public business. Along the line of progress in efficient government we have foremost President Taft's commission at Washington, the president's commission on efficiency and economy, which began work one year ago this month. I myself am connected with a bureau of public efficiency here in Chicago and in many other cities. The municipal governments are awakening to the advantages to be derived by buckling down to this efficiency idea.

"All those strides have been made along the line of accounting and in pursuit of this line of efficiency work, this is the first time I have seen the two linked together, the program today, municipal accounting and efficiency. The combination is most appropriate. A city outgrows its plant just as a private corporation outgrows its plant. The only difference is that the private corporation meets its needs with new facilities or additional facilities much quicker than the municipal corporation. New York City alone has a municipal debt which for several years has bordered closely near the national debt. New York has twice as many people on her payroll today as the national government in the city of Washington.

"The city of Chicago spends each year four times what we paid Napoleon for Louisiana, and eight times what we paid Russia for Alaska. The fact that some cities are not financially bankrupt is due to the fact that every year the treasury is replenished with the collection of taxes.

Valuable Service by Census Bureau

"The United States Census bureau has probably done more toward securing uniformity in municipal reports than any other agency, and yet, as you all know, much yet remains to be done in securing clearness of exposition as to results accomplished. In order to administer efficiency the administrator must have sufficient and reliable information. In order to elect efficient administrators the electorate must have sufficient and reliable information. Let us suppose that the mayor of each city opened a ledger account with each of his cabinet heads; that he charged each of those cabinet heads in the respective ledger accounts with the amounts allowed him in the annual budget, and that he credited him with the actual results actually accomplished, with the amounts allowed him. Let us suppose further that this debit and credit account was spread upon a chart or charts, and that these charts were not only circulated in printed form throughout the particular cities, but to all other cities, but moreover that these charts were enlarged and placed upon prominent exhibition in the public library of each city, or in a room in the city hall, how long would it be before the different departments in each city and corresponding departments between cities began to vie with one another and enter into a strife for results?

"Why do people in one city pay twice as much per yard for asphalt pavement of a certain kind as people in another city? And why do people in the second city pay twice as much for cleaning per square yard of a certain kind of pavement as the people in the first city? Why do people in one city pay twice as much for cleaning a sewer catch basin per catch basin as they do in a city in some other part of the country? The answer is that neither the administrative officials nor the public have been supplied with adequate information as to the actual cost and what the cost ought to be.

What Official and Taxpayer Need to Know

"What the administrative official needs to know, and what the taxpayer needs to know at the end of each year is what was the cost per square yard of the different kinds of pavement laid? What was the cost per square yard of cleaning the different kinds

Digitized by Google

of pavement, per cubic foot; or for garbage removed, or for hospitals, etc.; per gallon of water pumped; per inspection of water meters inspected. The trouble has been and is that such cities as do produce unit costs have no basis for comparison. Although unit cost of the given function or activity may be less in one city than the corresponding costs in another city, the comparison may be of no value, because the cost in the other city is excessive.

"The lack of comparison is due to the lack of standardization. These unit costs have not been standardized to determine what they ought to be. Has your city ever laid a block of pavement under the direction of an efficiency engineer as a test to determine for future guidance what the future cost ought to be under average conditions? Has your city ever had a street cleaning expert study the methods under which you are cleaning streets as a means of determining which is the cheapest and which is the least harmful to the health of the people on the street, and the least harmful to the pavement itself? Has your city ever supervised with a stop-watch its sewer construction gangs, sewer cleaning gangs or other labor gangs, to determine what the actual cost of such work ought to be? Until such a standard of the different kinds of municipal labor activities, functions is established, comparisons can have but a limited value.

Scientific Budget Making

"This brings us to the second essential of efficiency in municipal accounting, namely, scientific budget making. For while unit costs may be developed irrespective of the form of budget, the reduction of such costs may be greatly facilitated by having the proper form of budget, one which lends itself to actual budgetary control. The municipal budget is the principal instrument of financial control over the finances of a city. The basic trouble with municipal budgets has been the allowing of large lump sums for groups of different functions or activities. Until a definite amount is allowed for salaries and wages, supplies, materials, etc., there can be no assurance on the part of those being called upon to pass judgment upon the budget that the amounts requested are perhaps not excessive.

"Until two years ago the city of Chicago was operating under a budget which contained many lump sum appropriations. It was not segregated as to functions. The nomenclature and grouping of the accounts was such that consideration could not be given understandingly, either on the part of the comptroller or on the part of the finance committee of the council in their efforts to reduce the aggregate amount of the budget. In Illinois the tax rate is fixed definitely by statute and the budget must come within a fixed amount, quite different, for example, than in New York where the budget is fixed up first and the tax rate is fixed to meet the amount required. So that Chicago officials are put to their wits' ends every winter to cut and fix their budget to the amount of revenue in sight. As a result of the study of the Merriam commission of the Chicago budget the form was changed. The form of making the budget was changed, and in January, 1910, budget methods were adopted by the council which, so far as I have been able to learn, are the most scientific in use in any American city today. The first thing we did with the Chicago budget was to standardize it. We analyzed the purpose for which Chicago spends money, and in a big city of this size they spend money for almost all purposes. We brought those into groups, and we found that there were a certain number of groups into which these expenditures almost naturally arranged themselves. We took each group and made that an appropriation title. We made it a uniform appropriation title throughout all departments. If any of you are interested I am sure by writing to the comptroller of the city of Chicago he will be very glad to send you a copy of these lists of commodities together with this new form of budget. The same thing adapted to county needs was put forth by our bureau of public efficiency. Of course, no matter how much care is taken in making a budget, you all know that it is impossible to foresee an entire year in advance just what contingencies may arise which will demand money. For that reason transfers from one account to another are necessary during the year, but to head off manipulations the light of day should be turned on transfers just as fully as on the original budget, and transfers should only be allowed after they have been passed upon by the comptroller and transmitted to the council, or one of its committies, over the signature of the comptroller that he has investigated the conditions and that he approves of the transfer.

Efficiency Bureaus

"I wish to emphasize at this point the valuable service which may be rendered not only in the preparation of the annual budget, but in securing better efficiency all along the line by what we term the mayor's eye. I have in mind a small expert staff, responsible directly to the mayor and designed to assist him in securing effective administration. As a permanent staff only two men are essential, a municipal accountant and a municipal engineer, but both should have received special training in efficiency work. It is needless to say that their selection should be entirely separate and distinct from

Digitized by Google

all political affiliations, and it may be advisable to employ them without the civil service. There are many high grade experts who can be obtained in the country who, owing to the demands on their time, will not bother with civil service requirements. The city of New York after the Tweed scandals, organized a commission's eye. There are two commissioners, one a certified public accountant in the state of New York, and the other an accredited engineer. The Boston Finance committee partakes somewhat of this nature. The Milwaukee Bureau of Efficiency and Economy, which is also sort of a mayor's eye, under the populistic administration, by advocating and securing incineration plants, expect to save to the city of Milwaukee $64,000 a year, that one item of disposing of refuse. Comptroller Taussit, in St. Louis, recently employed a man from Chicago, one of our own men of our bureau, to go down to St. Louis and do efficiency work for the St. Louis government. In the face of considerable opposition, he showed how at least $50,000 a year might be added to the water revenues alone. Twice the amount of the entire appropriation. The Merriam commission which recently made a study of methods of administration in the government of the city of Chicago and submitted many constructive reports, might, had it been continued. been made a mayor's eye for the city of Chicago. Several bureaus have been established throughout the country of an unofficial privately supported character, such as that with which I am connected in Chicago, the Chicago Bureau of Public Efficiency; but there is often a lack of that hearty cooperation which makes for the best results. By far the best way is for the chief executive in the city to have an expert staff of official standard. There are many problems which such an organization may solve in every city. The methods of tax assessment in your city, are they equitable? Are taxes collected at the proper time? Or could you, by collecting taxes semi-annually, save a large amount of interest on temporary loans made necessary by the illogical time at which taxes are now collected? New York City recently obtained permission from the legislature of New York to collect taxes semi-annually, and they expect to save $2,000,000 a year on interest on temporary loans which they had been compelled to incur because of the illogical time of collecting taxes.

Does a City Know What It Should Know?

"Does your city get the most benefit from its public advertising? Is there an official publication to which the dealer doing business with the city may turn knowing that he will find there all of the advertising of the city? Or, if a man wants to do business with your city does he have to take all of the papers? Do your citizens receive the weights and measures to which they are entitled? The United States Bureau of Standards originally stated that 60 per cent of all the weights and measures in the United States today are wrong. Are adequate charts being provided on contracts? I have known the same piece of property to be accepted hundreds of times in the same year as surety for an amount far in excess of the value of the property, and there was a mortgage on the piece of property all the time. Are your payrolls and vouchers designed so as to fix responsibility? When a man signs a voucher, when an official signs a payroll or voucher, does he really certify to a fact which would be good evidence in a court of justice? Can responsibility be fixed, or does one official sign because he assumes that somebody else has seen that it is all right? It is often a fact that many signatures operate to shift responsibility rather than to fix responsibility."

Waste and Inefficiency

Le Grand Powers

Chairman Sands, announcing the unavoidable absence of Comptroller Prendergast, of New York, and Dr. Cleveland, of the efficiency commission of President Taft, presented Dr. Le Grand Powers, of the United States Census bureau, with the endorsement that "he has probably done more towards securing a uniformity of municipal accounts and municipal reports in America than any other one man."

Said Dr. Powers: "It is because, in my opinion, that successful democracy will find proper accounts and systems of accounting its greatest aid, its greatest instrumentality, that I maintain my faith in the future of democratic government. Efficiency administration of your business, or of my business, or of the city business, can only be based upon knowledge. All city officials, whatever the form of government, must know the affairs of that city. Accounting can give the sort of knowledge that can be made the great aid and instrument of officials who want to give honest and faithful and efficient government. And, further, it is because at last the government of the cities rests upon the people, that the only hope of the people maintaining their control over public officials, such as they ought to have in a democratic government, must come from the people having the information that shall give them a perfect knowledge of all their affairs; and we are waking up to the consciousness that city government must grow more and more in importance as compared with the nation. At the present time the governments of

Digitized by Google

147 cities of over about 30,000 inhabitants are expending for the costs of government more than two and a half times per capita those of the national government. The costs of our our cities are increasing more per capita than are those of the national government, although you hear very much concerning the billion dollar congress and all its increase. There is not a municipality in the United States which is not expending at the present time at least five times per capita what the national government is expending for the Panama canal, river and harbor improvements, public buildings, forts and fortifications. Our city expenditures are growing per capita with a wonderful rapidity, and faster in the large cities than they are in the small. If the people of any city don't know whether a given official is really worthy of praise or blame they may be led by a demagogue or by any other cry-out against an efficient and honest man, or they may be able and will be led to pardon the neglect of one who is inefficient, and we never can have good government such as we plead for until we make our city accounts from top to bottom all through their branches tell the daily story. We must have standard for measuring public service. Until we fix the units of public service, and in some way determine what we are getting, we are not in a position to judge of public service intelligently.

Accounting Which Permits Comparison

"You all have in the various cities of this country today asphalt streets, macadam streets. Now, it is possible to know in every one of your cities how many square yards of each kind of those streets you have. If you keep your account with asphalt streets and with macadam streets separately you ought to be able to tell each year how much your asphalt streets cost to care and maintain and repair per square yard or per thousand square yards, and so with every other kind of street. You can determine whether those costs are more than they were last year, or less. You can, if other cities are keeping their accounts in the same way, measure the cost of those services in your city with those in another municipality, and so on ad infinitum. But, unless you have this, or common standards or service, you have no means. The problem is one in analytical and statistical accounting, that is the application of knowledge in an orderly way to accounting propositions. We cannot have good government unless we have the good showing and good thinking and intelligent watchfulness. You cannot watch unless you know how to watch, and hence there is need of such a presentation of your accounts that the people whose hearts are right from one end of the country to the other may watch intelligently as well as pray for good government.

"When I began collecting statistics on the basis of uniform reports of cities I was laughed at—only eight years ago; they said that we were entering upon a dream, it was the dream of a visionary, but we have now had, with less than eight years before us, every civic association in the United States and Canada commending the principle. The faith of the people is set in the right direction.

Federal Government Efficiency

"We hear it said a great many times that governments are inefficient as compared with private business. I want to say to you that there is no justification for that proposition. The United States internal revenue collects annually $300,000,000. It collects it from the liquor traffic, the tobacco traffic, the oleomargarine and kindred traffic. To collect this revenue the government has to enforce that which every person here knows to be true, laws very difficult of enforcement. But the cost of this enforcement which is all summed up in the cost of collection amounts to only 2½ per cent of the amount collected. My friends, there is not a business corporation either in the United States or in Europe that can approach this in efficiency and in economy. The governmental efficiency of accounting is away ahead of private accounting of any corporation. Governmental accounting costs more than private accounting, but costs more because it is more efficient, and if you are to have efficient government you are never to have cheap government. You may lessen governmental costs, but you must recognize that efficiency costs. I have faith in the city. The rising power of the democracy that has its home in the city is to ultimately bless the world, but it can only bless the world as it is an intelligent progress, as it is an efficient power, and that efficient power can come only as our accounts give the people the information that shall make this power for good of our cities supreme." (Applause.)

What City Planning Means

Richard B. Watrous

Richard B. Watrous, secretary of American Civic association, Washington, D. C., said: "As a subject for popular consideration and practice city planning is still in its infancy. So far as the public mind at large is concerned there have been traced on it

Digitized by Google

but few indelible lines as to exactly what city planning is, and this notwithstanding the fact, also, that since our capital city of Washington was founded we have had constantly before us an example of a city made to order.

"City planning, called by the English town planning, as it is now beginning to be popularly considered, means, briefly, city making according to definitely determined plans, made, so far as possible, long in advance of actual operations and execution. City planning would substitute method, order and long distance vision for the hit-and-miss haphazard method that has too long prevailed in the structural development of cities. It endeavors to fix in advance not only the lines on which a city shall be built but to estimate the cost from year to year and to apportion that cost to be paid through a long succession of years, by men and women of future generations as well as of the present generation.

"Too often city planning has been mistakenly regarded as, or called, purely æsthetic and relating only to parks and boulevards. As if parks and boulevards were only æsthetic! They are among the most practical of a city's assets. But city planning has no such limitations. It embraces every factor that may enter into its structural makeup. It foresees the avenues of greatest traffic, and makes, or tries to make, provisions for that traffic; it analyzes the future demand for and the adequate supply of pure water; it outlines the sewerage system; it indicates the wisest and most profitable commercial use of river and other water fronts, combined with their æsthetic treatment. Of course, it designates residence districts and considers the needs for parks and boulevards and playgrounds in the heart of the city and its present outskirts and the outskirts of the future city.

"The commercial organization, be it a commercial club, a board of trade, a manufacturers' association, or whatever else it is called, should make the study of city planning and the promoting of a plan one of its leading, if not its leading activities. Why? For many reasons. The live commercial organization—and if it is not alive it is a 'dead one'—is the clearing house of public effort for town and city development in trade and commerce. It should widen its sphere of usefulness. The average city council, as now constituted, is hardly up to the consideration of so large a subject as city planning. The live city business organization can and must do the educating. Then, when the time comes the common council will act. It always, or nearly always, does act when told to in a good, loud voice. In many instances the president of the right kind of a civic organization holds a more responsible position than his mayor and can do more for his city than the mayor.

Commercial Value of Municipal Beauty

"Most commercial organizations have directed their efforts towards the upbuilding of the communities they serve from the commercial viewpoint—the extending of their manufacturing industries and their output; increasing transportation facilities; swelling bank clearings, attracting a new population of investors of capital and of labor. The city that thinks it can attract new population and new industries to itself without preparing for them is as foolish as the man who invites a guest to his house and has no guest chamber for him. Cities, in most cases, make no preparation for the thousands they urge to come to them, not for a day, but to stay with them, to live and vote with them and to become a part of them.

"Consider for a moment the new population they seek—investors of capital and labor. Take the capitalist first. All kinds of alluring offers are launched at him. He is promised low taxes—sometimes no taxes. He can have land for the asking. But when the capitalist these days goes on a tour of investigation for the investment of his money, he is thinking about some other things than ample switching facilities, plenty of territory for his furnaces and machine shops, cheap water rates and fuel supplies and nearness to sources of supply and markets. If he alights at a dingy railroad station with dingier surroundings, he makes a mental note of it. If he becomes mud bespattered or dust begrimed as he starts out to look over the place he makes more than a mental comment—uses likely, a short, sharp, but wonderfully expressive word. Does he see but one main street, and that congested with traffic, interrupted with peddlers' vans, unswept and poorly lighted, does he hear the grind of picture show organs, does he look in vain for street signs, for shade trees, for good pavements, for parks, playgrounds and recreation centers? He is thinking of just a few other things than the opporunity to make money easily. He is, or ought to be, wondering how wife and children will take to this proposed new home. He can, if he must, put up with bad conditions, although, other things being equal, he prefers the same pleasant surroundings that he demands for the family he supports. So much for the investor of capital.

Labor Settles Where Things Are Right

"How about the investor of labor? He is sought in the thousands. He has been learning things, too, and is looking for something besides good daily wages. He has a

Digitized by Google

family, usually a larger one than the capitalist, and he is ambitious for his family. He wants his boys to get out of the wage earners' class and into the capitalist or professional class. The city that expects to increase its population by attracting additional laboring men, skilled and unskilled, must have specific advantages to offer in return. Schools and school teachers are not enough; there must be playgrounds and playground directors; there must be parks; clean, well shaded streets; attractive residence centers, with houses to rent and for sale within the reach of those of limited means; houses that are well constructed, near parks, provided with good water, safe sewerage and ample police and fire protection.

"The wonderful Chicago plan, which in its preparation alone cost $100,000, was born, nursed and finally submitted to popular approval in one of Chicago's leading commercial organizations. Now that it has reached the state when legislation is necessary to make its execution possible, Chicago has a legally constituted City Plan commission and that commission's efforts are being endorsed by all of Chicago's great commercial interests. Chicago has been keen in its appreciation of a most comprehensive growth, and Chicago will profit more than fancy can imagine by the work it will do and the money it will spend to carry out the recommendations of the city plan.

Cleveland's Municipal Organization

"Cleveland has for years been distinguished for the intelligent and enthusiastic participation in and leadership of great civic undertakings by its chamber of commerce. One naturally thinks of the Cleveland group plan when Cleveland is mentioned. But Cleveland is thinking of many other developments than its group plan. It has a depot commission; it looks years ahead in the extension of its parks and for the bettering of conditions of traffic, water supply and other necessities. Cleveland is convinced that all it has done has more than paid for itself. For one thing, Cleveland has forged ahead of some of its sister cities in its census reports, and students of city growth are saying that is because Cleveland has realized, as the other cities have not, the value of all-around civic growth.

What Dallas Has Done

"Dallas, Texas, has afforded a notable example of what a chamber of commerce of the right sort can do to get action on the initial steps for a city plan. That city has been blessed, as most cities are, with men who have studied, who have traveled and who know what is needed for city advancement. Dallas has a newspaper that to an unusual degree has devoted its columns to advocating the big things for Dallas that might be realized from a Dallas plan. The seed was sown in a fertile soil. The Dallas chamber of commerce cultivated it. It created a committee that studied the subject, investigated the application of city planning to German, French and English cities and engaged 'city beautiful' speakers to address mass meetings. In short—and it was short work, because it was teamwork—Dallas, through its chamber of commerce, decided to have a plan and to engage experts to prepare it. Dallas was fortunate in having a commission form of government and it did not take long to convince the few commissioners that the idea was the sensible one to produce a greater Dallas. It promptly approved the action of the chamber of commerce in creating a city planning commission and voted to include in its next budget an appropriation to pay the expenses of securing experts and their reports.

"In many cities, because common councils are slow to act in such matters, public spirited citizens provide the necessary first expenses by subscription. This has been the case in New York, Boston, Chicago, Minneapolis, Reading, Pa., Scranton, St. Louis, Cincinnati and many others. Strictly speaking, if the plan is desired all the expenses connected with its preparation as well as its execution should be charged to the municipal funds.

Developing a City Plan

"The procedure for the complete carrying out of a city plan must of necessity be a slow one. The steps to be taken for a plan embrace a study of the subject, followed by the awakening of a popular demand for the plan, the formation of a city plan commission, which may be a voluntary organization outside of the chamber of commerce, or constituted as one of its committees, or by the enactment of the city legislative body. Thus far advanced the next natural step is the retaining of a city planning expert or experts. And it is to be observed that recently cities are calling two or three experts, one of whom is more particularly an authority on city planning and landscape architecture in general, another a transportation expert, and the third an expert in sanitation. There are in this country, men who, by special training and long experience, are competent to render the service required of them. Once retained, and of course financial provision must be made for that purpose, they proceed to study all the local conditions which are eventually drafted into a complete report with illustrations, maps and definite

Digitized by Google

recommendations. Most cities enhance the value of these reports by having them printed in attractive form and in large quantities so that they may be given wide distribution.

Need of Educational Propaganda

"At this point the large and more difficult undertaking presents itself—that of securing legislative approval of the report and the vote of the necessary moneys, preferably large bond issues to carry out, or at least begin, the several lines of work recommended by the experts. The report, naturally, contains recommendations that can only be carried out during a long course of years. The wise city is the one that adopts the report in full, if it meets the general approval, and arranges, by a series of long term bonds similar to those now popular in Germany, to cover all the work contemplated.

"Such an undertaking can only be accomplished by a most thorough and widespread propaganda of education of the voting public in the value of the plan and the wisdom of assuming the necessary financial obligations. Kansas City, which during a period of just twenty years, through its board of park commissioners, has built up a system of parks and boulevards that has attracted international attention, and that according to their official estimates has fully paid for itself in the enhanced value of adjacent properties and the consequent increased tax returns.

"City planning involves vision. The first president of the United States had that broad vision which prompted him, immediately after the selection of the District of Columbia for the national capital, to retain engineer experts to plan for the growth of that city for a hundred years hence. The beauty of the Washington of today, the distinct character of its streets, the provisions of hundreds of open areas such as triangles, circles, boulevards, and promenades, demonstrate the wisdom of our first president in respect to city making."

Housing Motive in British Town Planning

Raymond Unwin

A representative of the International Municipal Congress and Exposition who was in Europe in the interest of the same secured the following contribution to the congress from Mr. Raymond Unwin, of London, one of the foremost town-planning architects of Great Britain, and well known for his work in creation of the beautiful Hampstead Garden Suburb. Mr. Unwin writes: "To understand the spirit of the town-planning movement in England, it is necessary to realize that it has mainly arisen from an effort to improve the housing conditions of the industrial population. The movement once it was under way derived help from many other sources, but housing reform was the original and most potent force at work. It was only after the ground had been tested by means of experiment at Bournville, Port Sunlight and Earswick by enlightened employers of industry, at Ealing and other places by the Co-partnership Tenants, and on a larger scale, at Letchworth and Hampstead, by means of voluntary associations, that an act conferring town planning powers upon our municipalities was obtained; and the scope of this act is limited to land in course of development or which appears likely to be used for building purposes. It only gives power to deal with those parts of our towns which are already built up, in so far as modifications within the settled areas are necessary for the proper development of the new areas which are included within the scope of the act.

"Under this act town planning schemes are permitted with the general object of securing proper sanitary conditions, amenity, and convenience in connection with the laying out and use of land and any neighboring lands. There are other methods by which our towns can obtain special powers for remodeling the interior areas, but there is no general town planning act in this country at present giving such powers.

Teaching the Citizen by Object Lesson

"Town planning being a new field of activity for our municipal authorities, Mr. Burns, in framing the act considered, felt that the most important thing to attempt in the first instance was to control that part of a town's development which is actually taking place or is about to take place; that this would find sufficient work for the municipalities for some time to come; that in this field any mistakes that might be made from want of experience would be made with the minimum loss and disaster, and that in any case where a more drastic remodeling of the interior of the town than could be carried out under the act should prove to be required, either special powers could be obtained or it could wait until further general powers should be conferred.

However much it may be desirable and no doubt is desirable that a city community should have complete power to control its own development and to modify its plan, to adapt it to new requirements, there can be no doubt of the wisdom of commencing

Digitized by Google

this work in the area where right development can be obtained without the enormous expense of undoing what has already been wrongly done. In no way can the citizen be more readily reconciled to the cost of changing that which has already been badly done, than by seeing the actual examples which new areas properly planned and properly built up will afford. I believe very strongly that if city planning is to be, as it clearly should be the outward expression in comely form of the life of the city community, that it must begin with and be based upon the improvement of the homes of the people.

Provision of Houses a Primary Requirement

"So long as the bulk of the people in any city have to dwell in unhealthy tenements or squalid cottages, the cost of beautifying the central areas of such a city must be difficult to justify to those people. The work must be forced and is likely to be artificial in character. Whereas once the mass of a community is well housed in comfortable homes, it will be as natural as it is desirable that they should seek to provide for their civic functions a setting worthy of their importance and to express in the greater sphere of their common life the comeliness which they enjoy in their individual homes.

"I do not mean by this that no city should prepare a complete city plan until it has solved the housing problem. Far from it, I believe that every city should prepare a city plan, and that this plan should cover both the existing area and the areas still to be developed, that it should provide for all the activities of the town. By means of this plan the city should seek to promote industrial efficiency by the proper grouping of all the conveniences and appliances which can assist the principal local industries, and that it should seek to provide suitable centres and groups of buildings for administrative, educational and recreational activities. But while the plan must be considered as a whole the actual carrying out of the work, that which should take precedence of all else, should be the providing of homes for the citizens in the most healthy and attractive locations, with the maximum of convenience and accommodation that the economic conditions will permit, and with the greatest degree of amenity of arrangement and comeliness of character that the skill of the community can devise. Let this work be well done and all the rest will follow.

"Let the people be well housed and contented, and it will seem natural to them to provide for the beautifying of the city and its glorification with fine places and noble buildings to an extent which even a distant approach at present might appear as a wicked extravagance, and indeed might well be such."

Digitized by Google

Business End of a City Government

Popular Welfare as Supreme Purpose

George E. Hooker

Said George E. Hooker, Civic Secretary of the City Club of Chicago, and chairman of conference: "We often hear it glibly asserted, as if it were a finality, that the one thing needed to set city affairs right is a business administration—the application of business principles to city government. I venture to say that there are certain recognized features of business procedure which are wholly out of place in city government, and certain other recognized features which are highly useful and desirable in city government.

"The aim of business is profit, and its procedure converges to that end. Business, for example, hires employes at the market rates, and takes no responsibility for their permanent welfare. The business man who acts to the contrary is an exception to the rule. It is not the duty, however, of city government to make profit, but to promote the welfare of the people. In all its activities, therefore, and not merely in those which may be specifically labeled charitable or humane, the city government should have the well-being of the people in view as its controlling aim. Its terms and conditions of employment should tend to steady and improve those of current business, and the provision by many European cities of homes for a portion of their employes, with a view to their general well-being, is a recognition of the broad duty of city government.

Business Principles

"Business principles applied to city government are often interpreted to mean the lowest possible expenditure for public purposes. The conduct of city government on this principle, however, may be conspicuously short-sighted and in the long run excessively costly. The department of education may save money by neglecting to train the truant. The department of public health may save money by neglecting to incur the expense of protecting the child from impure milk, and the whole family from exposure to tuberculosis. In later years, however, the folly of such parsimony will register itself partly in the budget of the reformatory, the hospital or the relief station, and partly in the low productive capacity of the community at large.

"Business leads a traction company to pack as many passengers as possible into a closed street car, where they are indecently crowded and unduly exposed to colds from bad air. Proper city policy demands, on the contrary, that the people ride comfortably, with good air to breathe, and a chance to use their time advantageously in reading. Business seeks its own gain, even at the expense of the community, grasps at the immediate nickel and ignores remote consequences. Good city policy is far-sighted and endeavors to conserve social values in a comprehensive spirit. City government can not safely apply the dollar yardstick of business to its work and projects.

Four Essentials

"On the other hand, there are certain principles of business procedure which are thoroughly appropriate, are too often wanting, and are imperatively needed in American city government. The four essentials of legitimate business success are:

"(1) Adequate capital for required operations.

"(2) Adequate legal power for those operations.

"(3) A staff properly selected and therefore qualified for those operations.

"(4) Honesty in conducting those operations.

"These essentials are equally imperative for successful city government. Yet some or all of them are prevailingly lacking in the government of American cities.

"I. Those cities are hedged about with constitutional restrictions upon their financial powers, which are belated, arbitrary and so impossible of prompt readjustment that they often bar the way to business prudence. The knowledge, too, that such restrictions exist leads the business man himself to neglect public affairs and to leave crooks in control of them, knowing that the latter can only carry their graft to certain fixed limits. The system handicaps and discourages legitimate city government and cuts the nerve of civic vigilance.

Digitized by Google

Ample Legal Powers

"II. City government, if it is to fulfill its duties, should have ample legal powers therefor, and should not be compelled to spend so much effort and time in securing those powers for a particular purpose that its energies are exhausted in the process, or that the powers when secured prove to be out of date from lapse of time. The American legislative practice of granting to cities only precisely enumerated powers, and the American judicial practice of construing those powers strictly instead of liberally, have tended to discourage civic enterprise and render civic efficiency peculiarly difficult.

"It is an astonishing anomaly, for example, in many or most American cities—due sometimes to constitutional and sometimes to legislative provisions—that, while any group of individuals may, with the consent of the city council, furnish any public utility to any citizen, the city itself may not be permitted to furnish that utility to its own people, even though the city council be anxious to do so. The cities of Illinois can not compel owners to clean the snow from the sidewalks in front of their places. American cities as a rule have no power to adopt, even experimentally, those forms of taxation of the unearned increment of city land values, which are being adopted, with apparent benefit, in many other countries.

A City Staff Must Be Competent

"III. The fundamental business principle that the staff of a city government should be well qualified for the work in hand is essential to success in that government, and its disregard explains much of our municipal backwardness in America. The frontier notion, which has had such wide sway in this country, that the ordinary citizen can perform the duties of any public office, finds few open defenders at the present time, but still finds many assiduous practitioners. The practice of 'rotation in office' in city government is still tolerated to a greater or less degree by the great majority of American communities. It makes a competent staff, however, impossible, and renders efficient government unattainable. This fact, indeed, despite its widespread disregard in practice, is now well recognized in principle in the great centers of the country, and standard methods for insuring fitness and permanence in the civil service have within recent years been adopted by a considerable number of our leading states.

"IV. The most perfectly constructed social institution, however, can be perverted by a sinister purpose in its operation, and this is what is happening to our civil service system in too many cases. Honesty is not more imperative to legitimate business success than it is to efficient city government, including the operation of civil service regulations. Granted adequate financial powers, adequate legal powers and a well-conceived civil service scheme, dishonesty in operating that scheme will render both it and those powers nugatory for efficient city administration.

Sinister Uses of Discretion

"Unless I am mistaken, the chief difficulty in American city government is the sinister abuse of discretion in the organization of the administrative staff. In states having civil service laws certain positions are legally filled through direct appointment by the mayor or other executive officer, while the great majority of places are classified and filled under civil service rules. The commissions which frame and administer those rules, however, are themselves appointed, and, if selected for that purpose, those commissions in connection with department heads selected on a similar principle, can so manipulate a civil service law and the rules under it as largely to nullify both. In too many instances have selections of this sort been made. Indeed, if this were the proper time and place so to do, I could readily give instances, constituting no less than a civic scandal.

Forms of Stealing

"We need a new definition of honesty, or perhaps of stealing, in public office. Stealing is universally recognized to be destructive of city government, as is evidenced by the widespread movement waged during the last decade against graft in municipal affairs. That form of public stealing, however, which consists in taking public money directly from the city treasury, or through concealed margins on contracts, is less widespread and less pernicious, although this seems not to be generally insisted upon, than is that form which consists in the taking of public money in the shape of salaries paid to, but not earned by, political appointees. The one form of stealing is worse than the other because it is more extensive in amount, and also because it is more demoralizing to the public service than the other. A political payroll is a weekly, not an infrequent, affair, and it runs into large amounts in the course of a year. A great public department, too, headed by a political appointee, is practically certain to be paralyzed from

Digitized by Google

top to bottom, so far as efficient and progressive public service is concerned, by the character of its head and the character of his management, even though the balance of the staff be well qualified.

"In analogy to legitimate and successful business, successful city government must have the welfare of the people as its broad controlling aim, must be clothed with financial and legal powers adequate to present-day demands, must have adequate regulations for selecting a competent staff, and must be freed from the abuse of discretion in executive appointments."

Relation of Voluntary to Municipal Bodies

Mayo Fessler of Cleveland

Mr. Fessler said: "One of the most significant and promising movements in connection with the growth of our American municipalities is the rapid development of civic and commercial organizations formed for the promotion of the strictly municipal interests of the city. The National Municipal league, the oldest of these organizations, has existed but seventeen years; the League of American Municipalities but fourteen years; and the American Civic association but seven years.

"At the present time, however, there exists in practically every city in this country of one hundred thousand and more population at least one permanent civic society organized by public spirited citizens and supported by voluntary contributions. In the larger cities a number of such societies exist, each developing its particular field of work. So numerous have these become that they are beginning to group themselves according to the particular kind of work undertaken; for example, the militant organizations of the voters' league type, which take an active part in municipal politics; the improvement association type, which advocates actively such physical improvements as parks and boulevards, public baths and playgrounds, grouping of public buildings and municipal art in general; the city club type, which devotes its attention primarily to public discussion; the efficiency organization, of the municipal research bureau type, which seeks improvements in the fiscal systems and the adoption of more efficient methods of administration. According to the last annual statements of the secretary of the National Municipal league, there were affiliated with that organization 181 municipal societies of the various types, representing a combined membership of more than 146,000. Ten years ago the leaders of these national civic movements were discussing the desirability of permanent and paid secretaries, and yet today not only have the national societies permanent and paid secretaries giving all of their time to the work, but the local societies are employing specially trained men for full time service. At the last meeting of the National Municipal league, a civic secretaries' committee was formed which now has a membership of forty men who have adopted the profession of civic secretary, have trained themselves for civic work and are devoting all of their time and attention to these public movements.

Interest of Commercial Associations in Municipal Work

"While commercial associations have not shown the same remarkable growth in the short space of time in the number of organizations or increase in actual membership, yet they have shown fully as marked a change in the interest shown in municipal affairs. Formerly the commercial organizations of the cities had for their primary, and oftentimes, sole object the promotion of the business interests of their respective cities, and their attention was so centered on the commercial object that they did not seem to comprehend the intimate relation between civic and business interests. Fortunately that narrow view is rapidly giving place to the view that whatever benefits the city and makes it more livable, benefits the commercial interests of the city and makes it a more desirable place in which to do business. And so we find, at least in all of the larger cities, chambers of commerce, business men's leagues and boards of trade devoting fully as much time to the development of civic improvements as to the promotion of trade and commerce. In some cases, as in that of the Cleveland chamber of commerce, they have become quite as much a chamber of citizenship as a chamber of commerce.

"One of the constantly recurring questions presented to the workers in this field of voluntary civic effort is what is and should be the relations between the political organization—the municipal government itself—and these voluntary civic and commercial associations interested in civic progress. It is quite apparent that they attempt to occupy, in a more or less degree, the same field. The city administration is elected, let us say, on a platform of civil service reform or the extension of the park system. The civic and commercial associations we find are advocating the same improvements. And we, who have been actively engaged in the movement understand how often it is a race between the officials and the voluntary civic forces to get the credit for having brought about the improvements. You will, no doubt, bear me out in the statement

Digitized by Google

that each is extremely jealous of its own achievements and that the maintenance of a entente cordial between the forces is oftentimes extremely difficult.

Voluntary Associations as Pioneers

"When the city government itself is efficient and sufficiently responsive to the popular demand for improved conditions, then the voluntary associations tend to decrease in number and to shift their efforts to other problems. They exist, after all, for their own annihilation, and as rapidly as one progressive principle is established and made a part of the official program they must retire from the field and take up the task of cultivating the next. Voluntary associations in civic work are essentially pioneers and they must ever remain such, moving on from time to time to new frontiers, and blazing the way for the new municipal ideas and improvements. As long as a voluntary association recognizes its chief function to be that of the pioneer, surrenders at the proper time the cultivated field to the city officials, and moves into the new, it is in a position to be most helpful to the community. The trouble oftentimes is that our voluntary associations are unwilling to hand over to the city officials these functions which they have labored so hard to establish.

"Thus far I have been speaking of the relation of constructive civic associations to the city government, those dealing primarily with specific measures of reform or improvement. There are also the critical organizations formed to point out weak places in the municipal machinery, inefficiency in administration, or defects in candidates for office. Here the attitude of the association must be critical—critical especially toward the city official. But the term critical should be interpreted to mean not alone criticism but also praise when it is due.

Give Public Officials Their Due

"The city official's position is by no means an easy one. He is usually hampered by unnecessary red tape, antiquated machinery, or the lack of funds—conditions for which he is not responsible and which he is powerless to change. The public does not know of these hindrances, cares less, and so heaps its abuse upon the head of the man whom it has elected to administer public affairs—oftentimes in an entirely unjustifiable manner. In fact, for a number of years back it has been a favorite pastime of the public to characterize without much discrimination city officials in general, as a set of grafters or self-seekers. Public officials as a group are not half so black as our yellow journals have been inclined to paint them, and there is not half as much graft going on in our American cities as these yellow journals and muck raking magazines would indicate in their headlines.

"Now the voluntary critical association is in an excellent position to assist in developing a more healthful attitude on the part of the public toward public office and public officials. They can ascertain the facts, make them public, criticize when criticism is due, and commend where commendation is merited; and I venture the guess that when the balance sheet is prepared at the close of the year if it is corrct, it will show a balance in favor of commendation. We complain that public spirit has declined and that the right kind of men shun public office. It isn't the office so much that they shun as it is the public mud-slinging which accompanies the campaign for election and the unfair and unfounded criticism accompanying the administration of the office after being elected. We sadly need in this country a greater respect for public office. The civic associations can assist materially in creating this respect by taking the right and healthy attitude toward officials, a majority of whom I believe are trying to render efficient service.

The City Hall and the Business Man

"There is a certain amount of justness in the attitude of many officials in regarding civic secretaries as interlopers and meddlers; but they are far less likely to regard us as such if we are disposed to give them a square deal—consider their official conduct in the light of the conditions under which they labor, and state the facts even though our reports do not receive a front page position in the daily papers because they lack the element of 'good news.' The cordial relations between the voluntary organizations and the city officials is all the more important in view of what seems to me to be a natural and inevitable tendency in our American cities; and that is the tendency on the part of the municipal government to look to these civic and commercial organizations for advice and assistance in securing needed improvements. For example, the city officials propose a bond issue for a tuberculosis hospital, or for the extension of the park and boulevard system. They naturally turn to the voluntary associations to support them in the campaign. In fact, in many such instances, the voluntary association is the most active factor in obtaining a favorable vote.

"Another form of assistance which can be made very helpful to the city, is the advice received from the experts, usually on these committees of voluntary associa-

Digitized by Google

tions. Oftentimes the public in this way gets the advantage of the opinion of men high in their profession whose services cannot be bought. These men are perfectly willing to give a limited amount of time to public service on a committee of a chamber of commerce or municipal league; but would hesitate to offer it individually or give a personal opinion outside of such a committee. The committees of these organizations are full of experts and if the right relations exist between the official or political organization and the voluntary association the public is sure to receive much benefit from their advice and assistance.

Practice in Germany

"The German cities, the most efficiently administered cities in the world, have realized the benefits to be derived from such co-operation, and have developed the principle much further than we have, though in a different form, through their system of joint commissions or so-called deputations. These are commissions composed of officials and a certain number of citizens of high rank in business or professional circles who have supervision of the work of the various departments. The citizen deputies receive no remuneration, and are not, in fact, a definite part of the administration, but their professional advice and earnest co-operation is extremely helpful to the permanent city officials in securing the efficient administration for which German cities are noted. The evolutions which our civic and commercial organizations are undergoing at the present time will eventually, in my opinion, lead us to somewhat similar relationship between the official and the unofficial forces working for better government.

Division of the Field

"Now as the commercial organization becomes more and more active in strictly civic work, another problem arises, namely, the relationship between civic and commercial organizations themselves. How will they divide the field so that there may be no unnecessary duplication of effort, and so that each may be of assistance to the other. It is not a question of one or the other usurping the field, for in every city with which I am acquainted, there is plenty of work for each. It is simply a question of division of the field and co-operation of effort. Of course, in cities where the commercial organizations are not active in civic work the civic association has the entire field; but the number where both are active is surprisingly large and rapidly increasing, so that the question has become a pertinent one in many cities.

"The division of the field, it seems to me, should be determined in a considerable measure by the nature of the organization. The commercial association is composed of, is controlled by and represents the large commercial and industrial interests of the community and whatever action it takes, it is strongly tempered by the effect which it is expected to have on these interests. Now, I do not mean to say that the business men of a community do not often rise clear above their selfish interests and stand for the interests of the community at large to the detriment of their own personal interests, for I have frequently seen them do so. But they are in the very nature of the case prejudiced in favor of their own interests and inclined to feel, sincerely too, that a disturbance of the business interests means a permanent injury to the entire community. So they are inclined to look askance upon the free untrammeled discussion of social and economic problems, and to be hostile toward the adoption of many of the somewhat radical functions which our cities are assuming. Furthermore, there is a distinct prejudice existing in the minds of a considerable portion of our population toward the interference of business in municipal affairs.

Differentiation of Services

"The civic association with its broader membership and less immediate connection with big business interests is not subject to the same influence, is less likely to be accused of ulterior motives, and hence can effectively work out many reforms which the commercial association would be prevented from doing, or at least would be seriously handicapped in doing.

"For these reasons, the commercial association can accomplish more by the advocacy of plans for physical improvement or the promotion of new legislation where the element of personal conflict is least likely to arise, and where the motive of self interest can with least reason be attributed to its activity. It would be unfortunate for a commercial organization to attempt to interfere in political issues, to become the aggressive critic of methods of administration, or to pass judgment upon candidates for office. It would be sure to call down upon its head the criticism that business is again trying to control political affairs—a criticism which too many are so willing to accept as well founded.

"In the broad field of city planning the commercial association with its greater resources and influence can probably accomplish more. In the adoption of a new

Digitized by Google

charter or municipal code the civic association can be more effective. In the advocacy of bond issues for elimination of grade crossings, the building of a hospital, or the extension of the park system, the commercial association is in position to lead. For the examination of methods of a department and the criticism of the administration in any department the civic association is better suited. Along these general lines, the civic and commercial organizations in a city can, in my opinion, best divide their fields of effort, act as a support to each other, and work in harmony for the general improvement of municipal conditions."

Commercializing Municipal Management

G. W. B. Hicks

Discussing the matter of "Commercializing Management of Municipalities," G. W. B. Hicks, of Philadelphia, executive head of the Comprehensive Plans committee, said: "Cities today are justified in making expenditures for improvements that may have been considered luxuries some time ago. Systematizing departments means to so arrange the various departments or bureaus from the highest to the lowest, inclusive, as to enable them to be conducted on a business basis, and to do this in such a way as to enable them to produce such economical results by past expenditures as to justify future appropriations.

"Municipal expenditures should be divided into four classes:

"First. Expenditures or appropriations to the surplus income bearing improvements.

"Second. Expenditures for improvements that produce sufficient income to make them self-sustaining.

"Third. Expenditures that have no direct financial income, but are actual necessities in all municipalities.

"Fourth. Expenditures that are used for entertainment and the pleasure of the people which may be considered actua! necessities.

Income Bearing Improvements

"Under the first class it may be said that there is possibly nothing in the way of municipal expenditures that creates a greater income than main and branch sewers and street grading, and the income created by such expenditures is not only felt during the year that said appropriations are made, but the character of improvements afforded by them make a perpetual income to the city, provided such expenditures are judiciously made. This class of improvement should be studied with an eye single to financial income from the fact that they are established in new neighborhoods, and hence afford an immediate improvement which could not be made prior to such work being done. Other things that are to be partially credited with consequent increases in assessed value are the sewers that are tributaries, and the grading of strees that said sewers occupy. This character of appropriation resolves itself down to two classes of people: first, the man who considers the interest of a municipality from a comprehensive standpoint, who, I am sorry to say, are few in number, and second, the man who has a financial interest in the development of the land this affected. To prevent injudicious appropriations far in advance of necessity the government power of such expenditures should not be left to those who are personally interested, but rather should they be left to a board constituted for the purpose of considering the city's interest in its entirety, whose knowledge would lead them to know in what direction the city was growing so that they could precede the requirements with such improvements only so far in advance as to enable them to receive a direct benefit immediately upon the expenditure of such appropriations. In the city that I represent this character of legislation for the past three years has been so closely watched with that thought in view that the improvement is so marked as to enable me to make this statement that the increased assessed value between 1906 and 1907 was something less than 35 million dollars; the increased assessment between 1910 and 1911 thus far is over 175 million dollars.

Utilities

"In speaking of the second class expenditures for surplus income bearing improvements, legislation concerning this character of improvements should also be censored by those having in mind the interest of the comprehensive development of the city at large. In this class you might put what are commonly termed 'utilities'—viz: light, water, gas, harbor improvements, etc. Many think that these conditions should be so governed as to have them afford profit. If such was the case, they could readily

Digitized by Google

be considered in the first class, but taking into consideration that there comes a time in the history of all municipalities when the habits and customs of the past will no longer serve the purpose of present day demands, large bond expenditures are necessary for the purpose of putting these branches of the city government in first-class order.

"By way of illustration, some cities are compelled to offer in place of the ordinary river or stream as a water supply, a finished product. Such is our experience. The people of our city are paying no more for filtered water today than they did when they were supplied by direct pumpage, and while the per capita consumption has diminished slightly today I think we are the second highest consumers of water (that is, per capita) of any city in the United States, our per capita consumption being 200 gallons per day. The additional cost of producing filtered water, together with the interest charges on bonded indebtedness occasioned by said improvements, makes it a question as to whether our water department is self-sustaining at this time. If it is not, it should be so classed until the income therefrom, occasioned by economies in its management, is sufficient to show a credit on the books, after which it could be readily classed in with the first class of surplus revenue producing feature, which in the case of Philadelphia will be within a very short time.

Expenditures Without Direct Income

"This principle will hold good no matter what condition arises in the various cities. Conditions also differ concerning intercity transportation, gas, electric light service and river and harbor improvement. Some own and operate their own plants; other own and lease, and other grant franchises to independent companies, which makes it difficult to state the class until the results are actually known. As can be seen, a private corporation would not receive appropriations direct from the city, but they would produce a revenue. On the other hand, a city owned and operated plant would receive direct appropriations and the classifications would be determined upon the results produced from such appropriation.

"Municipalities do not receive direct financial income from all appropriations, such as come under the third class, may I refer to education, police, fire protection, health, street cleaning, ash and garbage collection? Those I consider actual necessities, some of which have no means of producing direct financial income that would anything like pay the expenditures required for their maintenance. Let me make myself clear in speaking of the third classification. When I say that they do not produce a credit that makes them self-sustaining, I particularly refer to the financial feature, for I do consider their services credits notwithstanding the direct income is not felt by the city treasury. The same may be said of the department of health and charities, whose value cannot be over-estimated when it is directly due to their existence that epidemics are a thing of the past and contagion is bridled to the degree of control. I sometimes question whether we have a right to apply the word charity to our departments furnishing homes to the unfortunates, because I believe that if a census were taken, it would not be far fetched for a report to be rendered that would prove that 90 per cent at least of the inmates of these institutions had been good people and had contributed their share to such causes when they were prosperous in their early lives.

"I also consider street cleaning a necessary expenditure without direct monetary income, but I am not willing by any means to concede that vast sums of money could be collected for ash collection, particularly in the large cities, without some credit is received by this department. I believe that properties owned by the cities either in the beds of streets or otherwise should be designated as a depository that the ash collector should use as a dumping ground and the yardage dumped therein should be credited to the department of ash collection, on account of the moneys that they have saved by preventing the necessity of a city paying for such filling by contract.

"Too much consideration cannot be given to the handling of house waste, such as paper, furniture, carpet, etc., which should be kept separate, and I believe, as is done in some cases, the city should receive money for collecting the same. It also may be said particularly in the larger cities that an income could be received either by a great reduction in the contract price for garbage collection or by the city establishing its own incinerating plant, and if it could it should produce sufficient revenue to pay its expenses, thus placing this department in the second or self-sustaining class.

Expenditures for Recreation

"Expenditures of the fourth class—for entertainment and recreation—are a good investment. This is a matter that some may consider speculative, but no longer is the publicity of a city, the position of host to a distinguished guest, or the pleasure of the people to which the city contributes, a speculation in the minds of those having

Digitized by Google

the comprehensive development of the city at heart, and the income therefrom is just as incalculable concerning the direct monetary benefit that the city treasury receives as those in class three. But my reason for establishing the fourth class was from the fact that it is possible for a city to make no pretense at conventions, celebrations or entertainment or the hiring of music on the plazas, parkways and parks; hence this class is not mandatory such as class three.

"May I here briefly refer to the comprehensive plans that have been considered in our city by a committee of our most prominent citizens, men who have made a success of their own business affairs, and have served on committees for the last two years without compensation, and for no other purpose than that of giving their business experience to the recommendation of a plan for comprehensive improvements to our city that could be so closely adhered to that every piece of legislation offered in the future may be a part thereof, with an eye single to a completed systematic development of the city.

"This committee took up the subject of harbor improvements, intercity transportation, trade expansion, the establishment of new and convenient manufacturing sites, the entertainment of visitors, exhibition and convention purposes, the establishment of parkways, boulevards and parks, so that the city's interests were studied along the line of this probable development for the next fifty years, allowing, as they did, in their recommendations for not only the present requirements but a 25 per cent immediate increase with enough land and space acquisitions for additional buildings in the future that may be required for the various institutions during the time referred to.

Commercializing of Departments

"The principle of this commercializing of departments is particularly noticeable in these suggested improvements and studied out with such precision that I am ready today to state that the comprehensive plan as recommended in the city of Philadelphia can be carried out completely without increasing the present tax rate one penny, and today I believe that the taxes of Philadelphia are lower for what the people receive in return than can be said of any other of the large cities. This remark should be followed by the statement that we have no special assessment or county taxes in Philadelphia in addition to the realty tax of $1.50. The basis of assessment in Philadelphia today, notwithstanding we are privileged to assess one hundred cents on the dollar, is not more than 75 per cent.

"I believe that I could go into any of the reasonably large cities of the United States and inaugurate a commercial system of comprehensive plans that will give that city whatever a committee of its best citizens claim it should have without increasing its present tax rate, and in at least 50 per cent of the said cities I will guarantee that the taxes can be reduced after said improvements are made.

"If the income from all sources was, by act of assembly or act of councils, expended on a percentage basis of the first, second, third or fourth class order that I have mentioned, with a nontransferable clause so that the heads of departments would know at the beginning of the year that it was not to be taken from them by undue influence, and this allotment agreed upon after a comprehensive study, it would be all that is necessary to assure any municipality abundance of improvements; hence work for its people without fluctuating the tax rate, which is invariably a case of uncertainty from year to year, and there is nothing that would appeal to the business man more than to establish a fixed condition concerning the tax rate of a municipality. A percentage basis should apply to revenues received not only for current expenses but from bonds, and may I add, the term of bonds should be for not less than fifty years, with the privilege of liquidating one-fifth each ten years; thus the money borrowed for improvements that required renewal in ten years would fittingly meet the term of such appropriation, and at the same time the money that was borrowed for improvements that lasted fifty years would not have to be paid off in its entirety by the present generation but would extend over a greater period."

The City for the People

Municipal Socialism

Emil Seidel

"The City for the People" was the subject before a section over which William C. Graves of Chicago presided. Said the Hon. Emil Seidel, mayor of Milwaukee, discussing "Municipal Socialism": "The recognized functions of a twentieth century community are fire and police protection, which is given by means of departments; city platting and street building, cleaning of streets and rivers, collection of garbage, ashes and refuse,

Digitized by Google

sewage disposal and building of sewers; abatement of public nuisances, such as dust by means of sprinkling: abatement of smoke nuisances, noise, etc.; municipal sanitation and medical inspection; pure food inspection; providing of public and school buildings; supplying pure water; providing for parks, playgrounds and breathing spaces, and many other minor functions.

"While a modern city needs transportation, telephone, central heating, light, well regulated fuel supply, regular supply of milk and pure foods, as well as many other minor facilities, yet many of these latter cannot be furnished by a city government because of existing laws interfering. In such cases where the laws permit a community the right to do some of these things, these same laws make it so difficult to provide the means wherewith to do this, that it is well nigh impossible for a community to venture upon the performance of many of its duties.

"In looking over the list you will find that all those functions, which must be performed by a city and which will not render profits to the performers are left untouched by corporations: on the other hand, you will note that services rendered to our citizens and the community which can be made a source of revenue, are in the hands of corporations.

"All these revenue bearing utilities enable the owners to erect magnificent structures and do a great many other things besides paying good profits. These profits should go to improve these utilities and render them more serviceable. All the enumerated functions originally were carried on by means controlled by the users but which today are not owned by them.

Municipal Ownership No Longer Debatable

"The question of municipal ownership is hardly any longer debatable. The great changes that have come over the modern industrial world are answering that question. Where formerly production was carried on by the individual, today a great number of individuals are necessary to produce a given article. This has led to the rise of new questions, more difficult problems. Throwing together a great number of men into one occupation led to a sense of mutual suffering, common pleasures and weeping. Individualism has placed its stamp on every institution of man, not even excluding religion. While it was right at its time, today society has outgrown much of it. This individualism is responsible for such utterance as, 'The public be damned.'

"City planning is not a newfangled fad, but a sane attempt to adjust ourselves to changed conditions. Nor can the housing problem be properly solved until a sane city plan has been evolved. Land speculation is responsible for miserable and frequently criminal platting. Prices of land are prohibitive, and will not permit a family with moderate means to buy more than to place a few square feet of shelter upon it. And the less fortunate worker cannot even claim that. Planning of homes is done only too often by inexperienced men, and then it so happens that the rooms that are most used can very often never be reached by the benevolent rays of the sun. Plumbing is not what it should be. Ventilation is entirely overlooked.

Perverted Practices in Contempt of Knowledge

"To even the most superficial observer of conditions these facts must stand out prominently, viz: We know that a sufficient supply of wholesome and pure food is necessary to keep a body strong and healthy; yet we permit the supply of our food to be made the object of speculation and monopoly; we allow it to be adulterated; we leave the choice and preparation to the ignorant and only too frequently have not even learned to eat it properly. We know that our lungs need an abundance of fresh, clean air; yet we live in congested city districts; our streets are littered with dirt of all kind; we neglect our back yards and let them become fruitful hearths for the spread of disease; we neglect the grasses that act as sponges that will hold and return to the soil waste; trees and shrubs which act as shields against the chilly winds are used only to a limited extent in the building of our cities.

"Our men and women work in shops that very often are reeking with filth and in which only too frequently our foods are prepared; we permit the cupolas and factory smokestacks to eject poisonous gases and soot into the atmosphere that we breathe. Sunlight, which we recognize as a vital force in all life, we shut out from our streets by means of skyscrapers. And we are not yet ready to call a halt upon the insanity of speculation in construction of office buildings. Each owner of a small lot claims license to build as high as he chooses without regard to sunlight or air.

City Planning a Collective Function

"City planning and building must become a collective function instead of an individual enterprise. City planning and its analysis then, involves all that a city and a

Digitized by Google

city's people need: transportation, telephone, communication, light, water and heat supply, factory location and innumerable other functions and duties. Nor need this sound chimerical. Are we not already controlling many of these things in a greater or lesser degree? Besides this, we also have already encroached upon the prerogative of the individual by exercising in every well regulated city control over the source of milk and food supply, health and sanitation, cleanliness of private premises, individual habits, moral and physical welfare of the child, etc., etc.

"And that city stands as a model which is farthest advanced in all these activities. Someone will interpose that a city cannot operate all these enterprises economically. Graft would be rampant among officialdom; waste would be the order of the day; taxes would be higher; and what not more of these stock-in-trade arguments against municipal ownership. They are all too well known. But have we stopped banking because many banks have failed? Is it not true that more concerns have failed in every one of your older cities that are in existence in them today? And yet you have not discontinued private enterprise. If there is graft in public office, is it not due to the influence of men in private business? When a man gets into trouble, the French say 'Cherchez la femme'—'Look for the woman.' When an American official gets into trouble we can very pertinently say, 'Look for the business man.'

Cities Will Yet Teach Economy

"As for waste, the expense of waste imposed upon a people by competitive enterprise is far greater than the waste in public office. And what about the tribute exacted by corporate wealth from our people as compared to the taxes we pay for government? I pay a higher tribute to the meat trust alone than I pay in taxes. But these are only retorts that do not get at the real evil. If graft, dishonesty, taxes, and waste are ever to disappear, it will be only under a system in which social economy will have come into its own. I hold that for efficiency in municipal governments, it will not be many years until these will be able to teach many a private enterprise some very necessary lessons.

"In my home city, the past administrations have not met with so much opposition as the present one, though the latter has succeeded in reducing the cost of asphalt paving from $2.35 to $1.55 per square yard for the same kind of paving; and with all the waste eliminated, the price was brought down to $1.26 per square yard. All along the line the same earnest effort is made and many good results have crowned the endeavors. Fortunately, the signs that cities are improving in their governments are increasing.

Stronger the Organization the Better

"Before we can secure to the people their city, we must see that its government belongs to it. A city government may be likened to a piece of machinery. Though the word 'machine' applied to a government excites an odium, a machine in itself is neither bad nor good, but the use to which it is put places it in its class. A government is an organization to facilitate the government of a people. Let this machine squander public moneys, let it lavish franchises, let it interpret laws to favor a clique, it then is bad. However, if the government carefully surveys the problems that a people are grappling with, if it will use its power and its resources to aid the people in meeting these problems, then there can be no question as to its merits. And the stronger the organization of such government, the better for the people. The first task of any administration must be to place its government in a fit condition to measure up to the job which it is supposed to do. Then it is necessary to organize each department to such a degree of efficiency that a community derives the greatest amount of service with the least expenditure of energy and money. The best practice and equipment is none too good for a city. To go to a legislature to secure enabling laws is in itself a huge work. When one considers the many activities that a city must engage in, it is surprising that not more mistakes are made.

The Evil is More in Spirit than Form

"The best lawyers in a city will not be found in a city hall, because such a city has not the means to pay them what they can get elsewhere. The best engineers need not throw themselves upon the whimsical mercy of a fickle electorate. This applies to accountants, technical men and experts of all kinds. Yet there is no need of despair on the part of friends of good government. It is only natural that when we find ourselves surrounded and overcome by difficulties, we should look for the easiest way out. When suffering from the effects of bad government the first question raised is the merits of form. To change a form meets with far less opposition than a change in policy and spirit. Yet a change in form without a corresponding change in principle

Digitized by Google

avails nothing. I hold that with all offices at the disposal of the people, filled by men who are bent upon progress, our present form of either national, state or municipal governments could not stand in the way of advance. Therefore, I have not much time to fritter away over form. The real evil is not so much in the form as in the spirit.

Where Honesty is Presupposed

"The people of my home city have elected into power a set of men with new ideals and possessing a social conscience. Today the cry for honesty in city government is not raised in our city. Honesty is presupposed. It seems natural. For example; though honesty is a high moral attainment, yet it is fearfully weak without a material basis to soundly stand on. Again with such a basis, honesty is but a very commonplace phenomenon. A man will naturally be honest to a business enterprise if he is the owner of such a business. When he is after a franchise, nobody could bribe him to accept less than the franchise. Just so; if a man is after the possession of a railroad for all the people, he cannot be induced to desist by a bribe of one hundred or one thousand dollars. He wants the whole system, not a part of it. Therefore, when you place a man in office that is after a big thing, you cannot tempt him with small things.

Getting the Best Advice

"The present administration of Milwaukee is after the means of production and distribution as a means that the people use to procure a living. Since we are after big game, it is necessary to prepare ourselves by securing the very best government that it is possible to get. And this we again can only achieve by getting the best advice that money can buy. Realizing the wisdom of such a policy, the inaugural address of the mayor to the common council contained the following admonition: 'In your policy, the promises contained in our platform should have a prominent part.' Then followed specific suggestions, viz: 'Proper action looking toward the establishment of a bureau of municipal research should immediately be taken. An expert should be called in to advise with you on this subject. The first object of this bureau should be to make a municipal survey, to furnish accurate and adequate knowledge of social, industrial and economic conditions leading to specific and practicable plans for city betterment. A complete cost-keeping system for every municipal department should be established, distinct from an accounting system. Such a system would enable anyone to discover leakages and losses, whenever such existed. The survey should extend to other subjects, your action being directed to such as are of immediate importance, and calling for first attention. This will enable you in a short time to place the finances of our city on a sound and sane basis, fix a more nearly equitable basis of taxation and arrive at basis cost units that will be of great service.

How Milwaukee Went About It

"The common council took action and passed the following resolution less than two months after the inauguration:

"'Resolved, that the committee on finance of the common council be and is hereby directed to investigate the system of accounts of all departments of the city of Milwaukee, and the operations and activities of all departments and powers granted to the city of Milwaukee, which committee shall submit to the said common council for adoption, and other forms that may be necessary or convenient for carrying out such system and recommendations for rendering more efficient and economical the administration of the city.'

"Resolved, further, that such system shall be centralized in the office of the city comptroller and shall show in detail, according to appropriate standard units of product or service, the cost per unit, based on standardized equipment, stores, contracts and specifications, and to arrange for the payment of their necessary expenses, whether incurred in Milwaukee or elsewhere.'

"'Rsolved, further, that the sum of five thousand dollars be and is hereby set aside from the contingent fund to carry out the intent and purpose of this resolution.'

Countersigned June 14, 1910.

C. P. DIETZ, Comptroller.

Milwaukee's Bureau of Efficiency and Economy

"Preceding the passage of this resolution overtures had already been made for a man in whose charge to place this work, but it was some time later before we succeeded to secure the services of Professor John R. Commons, who now is the

Digitized by Google

director of the Milwaukee Bureau of Economy and Efficiency. The advisory staff of the Bureau of Economy and Efficiency is so organized as to include experts in engineering, accounting, law, business organization, labor organization, and municipal administration. I think I can safely say that this experience in city administration stands unique in the history of American city governments. While it is true that there are other cities that have efficiency bureaus and surveys, yet in all these instances such bureaus are conducted by private enterprise; and many of these institutions find it difficult to have their suggestions considered or adopted.

"From the first bulletin of the Milwaukee Bureau of Economy and Efficiency, it will be seen that the bureau considers its duties to be two-fold: one, the social survey and the other, the efficiency survey. The former attempts to discover the needs of our city, and its people and measures the efficiency or discovers the inefficiency of city government. The latter makes a thorough study of the work performed by each department for the city, and is to be followed by a reorganization of procedure along lines of the greatest economy and efficiency.

"Can These Bones Live?"

"Upon the memory of the days of my childhood, I draw for a picture. A prophet was taken by the hand and carried out and set down in the midst of a valley covered with dry bones. The prophet passed through among them. He observed that there were many of them strewn in the valley, and that there was no life to them. A voice asked, 'Can these bones live?'

"The reply he gave was, 'O Lord God, thou knowest.' Again the voice spoke, commanding, 'Prophesy' and the prophet spoke, there was a noise and shaking, and the bones came together, and sinews and flesh came upon them, and skin covered them, and there was a wind, and a breath came over them, and they lived.

"When confronted with actual conditions, you may find yourself in a position similar to that in which the prophet Ezekiel found himself; but you must raise your voice, and you must prophesy, and you must teach, and you must command, and soon there will be a noise, and a shaking, and men will come together, and new ideas will form, and new ideals will take possession of the masses, and once more they will begin to live."

Corrective Institutions

Frank R. McDonald

Said Frank R. McDonald, inspector of corrections, Minneapolis: "The corrective institutions of a municipality deal with an entirely different class than do those of the state or nation, the more serious cases going to the state prisons and reformatories, leaving petty offenders, such as tramps, vagrants, drunkards, broken-down criminals, unfortunates without adequate means of support, representing, as they do, all those unable or unwilling to secure remunerative employment, subject to the corrective influences of municipal institutions. The problem of their care is a difficult one and results in the establishment of municipal lodging-houses, city and county jails, workhouses, industrial schools, farm colonies, etc.

"When you admit that reform is the object of your places of incarceration, then you must admit that labor, of a useful nature and established on business lines, is the greatest reformatory benefit that can be conferred upon those incarcerated. Contract labor for prisoners, dividing authority between the contractor and the prison officials, is, of all things, most to be condemned. Using the prisoner for personal profit to outsiders, thus creating in his mind an idea of slavery, only intensifies his hatred of labor and weakens the possibility of his moral uplift, and should be abolished by every decent community. The labor of prisoners in a municipality should come under the direct supervision of its officials, if you would have the prisoners take an interest in what they are doing, whether it is in road-building, mining, quarrying, farming or manufacturing. Taught by those in authority in a kindly way, given fair treatment by his officers, who show an interest in his welfare, brings forward the best there is in the man, and makes him feel he is not the slave of selfish interests.

Product of Prison Labor

"What, then, shall be done with the product of prisoners toil? you ask; and I answer: If the manufactured product of prison labor conflicts with free labor, it is due entirely to the incompetency or want of intelligence of the municipality itself. Lack of harmony and jealousy in the different departments and fear of political influence, have much to do with making this problem difficult to solve. There is no reason why the manufactured product of prisons should be placed in the open market

Digitized by Google

with goods manufactured by free labor. If every prisoner in every country of the world today were kept constantly employed, the resultant labor would be insufficient to supply the demands of the various departments of the government in the construction and furnishing of public buildings, the making of materials for streets and roadways, and the growing of produce for the maintenance of the sick and unfortunate. A municipality must be regarded as a large business corporation, having within itself, through force of circumstances, the means whereby the burden of taxation can be lightened.

Making the Prisoner Suitably Productive

"Husbandry must be classed as one of the most beneficial of all the avocations which prisoners can be taught. It has the advantage of any other in that it not only teaches the man the value of honest toil, but gives him a knowledge of land values and trains both the hand and mind in the right way. It is easily acquired and gives opportunity for the selection of the different types, placing them where they are the most useful. If due consideration is given to the location of work-houses, colony farms, or houses of correction in general, and if diversified employment is furnished, you can select for each individual case the employment for which he is best fitted. It is of little use to place the man who is a railroad laborer, making buttons, brooms, or furniture. When he leaves the institution he should be prepared to take up the labor for which he is best fitted. Stone-quarrying, brick-making, farming and gardening, cement products, greenhouses, road building material, mining, or stock raising all furnish for this class of man labor suitable to his needs, keeping him in touch with the products of the earth. The man with some skill in mechanics should be employed at skilled labor wherever possible, the old or infirm should be taught to do the routine work, not because their labor is productive financially, but because there should be no idle hands in those places. Every inmate should produce something of value through his labor.

Not All "Criminals" Are Criminals

"It is a great mistake to class every man arrested and convicted of misdemeanor as a criminal. Ninety per cent of those sent to corrective institutions are neither criminals nor criminally inclined; they are mostly unforunates who, through circumstances or environment or through their appetite for liquor, drift into incompetency and degeneracy and become a menace and nuisance to society. It follows, therefore, that the reclamation of the man, teaching him the value of obedience, through honest toil, is the first principle to establish. The dominant idea should be education, not punishment. Care should be taken not to foster in him a spirit of vindictiveness. Severe punishment is not a necessity, except in the most aggravated cases. A kind word and fair treatment go much further than recourse to the dungeon and the whipping post.

"Especial attention must be given to the boy or young man who may be just on the border line of criminality, and who is sent for his first offense. I believe, in fact, that in many cases there never should have been a first commitment, and that hundreds of criminals are made from bad judgment in giving this first commitment. If due consideration had been given them from the proper source, many boys or young men could have been saved from the stigma of a prison sentence. If more attention were given to co-operation of the public official with civic bodies, municipal treatment of them, properly administered, would have saved them from any prison life whatever. No matter how ably managed are those institutions, or however fitting it may seem to send those of tender years to them, we cannot help feeling that if there is any real good in a young man, it is much better to keep him away from, than to have him come into unnecessary contact with, the most depraved side of humanity. Probation and parole systems are a necessity in every municipality, and there is no place where they should be more thoroughly understood than in the office of a superintendent of police.

Problems of Punishment

"The general leaning is toward short sentences for first offenders, and in many countries, notably our own, we find the same offender receiving the same sentence over and over again; in many cases this sentence does not exceed from three to thirty days. Again and again he is discharged from custody, only to return in a few days or a few weeks, for a few more days. It is well to give this subject consideration and ask if either the community or the prisoner is benefited by such a system. The majority of those convictions are caused through inebriety. The principal function of the judicial sentence is to reform the delinquent. Is he cured at the end of three or thirty days? If not, why is he turned out into the streets only to be sent back for the same offense after he has thoroughly saturated himself with alcohol? Dis-

Digitized by Google

tinguished medical authorities condemn the use of drugs as a remedy for intemperance; the definite short term sentence has proven an absolute failure, which leads to the belief that some other course must be adopted. Obligatory abstinence for a long period, through the operation of an indefinite sentence, until the appetite for drink is completely removed and the subject given such medical treatment as will restore his health and stimulate the power of his will, would seem to be the only possibility of cure for the intemperate recidivist.

The Prisoner's Family

"The idea of paying a daily wage to the family of a prisoner, commensurate to his earning capacity is being extensively discussed by every conference on social problems, and, in some countries, is being tried with varying success. The system has some advantages and many decided disadvantages. It would be difficult to discriminate between the man who has no one dependent upon him and the man who has family obligations. It would seem that this assistance to needy families should come from regularly organized departments, under the supervision of boards of charities and corrections, and paid for by general taxation, as the tax-payer, in the end, would be the direct beneficiary when the prisoner is restored to useful citizenship.

"The necessary means having been employed to reform the inebriate, the method of his liberation becames important. As much attention should be given to the economic side of this question as to the moral side. Whether he is released conditionally or absolutely, he should be surrounded at once by influences which will lead him into other ways of living than those which may have been the cause of his incarceration, prominent among which latter are: loss of employment, poverty, unfortunate environment, and the like. He must be made to feel that all the world is not against him. Some system should be organized whereby a society on the outside could keep in touch with those about to be released, securing them work and preparing relations to receive them and to encourage them to make a new start in life.

"Just as our large corporations are realizing the necessity of concentration of effort in the upbuilding of successful business affairs, so will our municipalities see the advantage of a centralization of all municipal dependencies, calling for charitable or corrective influence, operated under one system; on the one hand caring for the dependent poor, including the old and feeble, the crippled and paralytic and those who, from innumerable causes, are dependents on public bounty; on the other, the violators of the law, including the hobo, the drunkard, and all those who prey upon their fellow men are misfits in the business and social world. The former, objects of charity, entitled to receive every possible consideration from the community, but able to produce but little; the latter, subjects for correction, of whom is demanded reparation for their offenses, and able to produce much that is needed to support both classes, which increase in about the same ratio as the population.

Correctional Recommendations

"Eighty per cent of the men sent to places of incarceration are fit to perform some useful labor. What is most required is constructive ability in its distribution. With your corrective branch producing much that is needed for the support of the whole, the cost of maintenance would be reduced to a minimum. After a personal experience of eight years, covering the study and supervision of over 25,000 cases, committed for almost every known offense, I have the honor to submit for your consideration the following conclusions:

"(1) Open air employment is preferable to closed shops for municipal prisoners; and the character of employment should be productive and instructive.

"(2) Discipline of the highest order should prevail; and the superintendent or warden given full power to hire or discharge employes.

"(3) The manufactured product of prisoners should be used by the different departments of the municipality and not placed on the open market in competition with free labor. The labor of prisoners should not be placed under contract to outside parties.

"(4) Short sentences for drunkards or recidivists are not conclusive to the best results in their cure or reformation, and should be changed to an indeterminate sentence.

"(5) Co-operation between the courts and places of detention is a necessity in order to determine the standing of prisoners, if you would do justice to each case.

"(6) Gloomy surroundings should be eliminated, as far as possible, and cell rooms and dormitories so constructed that plants, flowers and shrubs are visible therefrom.

"(7) Education, including libraries, lectures, religious instruction and night schools should be a prominent feature of all places of correction, and recreation should be provided at proper intervals.

Digitized by Google

"(8) A thorough mental and physical examination of every case before admission, by a competent physician, in order to prevent contagion.

"(9) Exposed firearms in the hands of guards have a tendency to irritate prisoners and injure discipline."

Housing Conditions

Arthur E. Buchholz

Said Arthur E. Buchholz, chief tenement house inspector of the bureau of health of Philadelphia: "The true scope of this subject is understood by one per cent of the municipal officials of this country, to say nothing of the rest of its population. Up to the present time, this important work has been left to a few people who have an interest in social and philanthropic work, but we must not forget that it is not the business of philanthropists to rid our cities of bad housing conditions. Most cities thus far have only done what housing enthusiastics have required of them, but not yet have the best brains of this young country been applied to the real solution of this problem, as has been so successfully done abroad.

"This problem in my judgment will never be solved by any housing reform movement, because movements of this kind do not know how many municipal problems are associated with it and they usually assume that corrupt politics are responsible for all housing ills. Houses that are found to be unfit for human habitation must be repaired either by their owner or at his cost, and if they are beyond repair, they should be closed or torn down, therefore, a proper supply of dwellings must always be maintained, either by private builders or by the municipality itself. These dwellings must be within easy reach of the wage earners' factory, workshop, office and store. To accomplish these things every citizen and municipal officer should see that the necessary legislation is enacted by the city, state and nation.

Get a City Plan

"First of all, a sane land policy must be adopted, and then you should see to it that your city adopts a comprehensive city plan that will last for a number of years. In this way the taxpayers' money will be spent to better advantage. A good building and plumbing code will never be adopted by our legislatures, unless it has the support of the municipal officials, because the slum landlord is sure to be shrewd and persistently attentive to his own interests.

"I do not believe, as some do, that, generally speaking municipal officials are obstructionists, although they often are conservative. Unpaved and unclean streets, the collection of garbage and ashes, the disposal of sewage, all have a direct bearing on the housing of the people and are responsible for much of our contagious and preventable diseases, and if for no other reason than the monetary cost to the taxpayers, these questions should be solved as quickly as possible in every American community. The privy vault, that relic of barbarism, should be outlawed and modern plumbing put in its place. The playground, swimming pool and lodging house problem will all be solved when municipal officials give to the solution of the housing problem, their best thought.

Unhealthy Land Speculation

"The evils which prevail at present have their chief sources in unhealthy speculation in land which cannot be combated until an alteration is effected in our laws. The redistribution of the hordes that congest our modern municipalities is next to impossible, therefore, efforts must be made to make the city a fit place in which to develop the citizenship of the future. You cannot go far in the solution of this matter before realizing that our land policy is wrong. If a real estate dealer is asked why he crowds fifty or sixty houses on an acre of land in our suburbs, he will tell you that the people are not able to pay for a plot of ground large enough to permit of a vacant space between houses. In other words, somebody has made very large profits, possibly the man who controlled the sub-division of the original farm into city lots. Land values are created by the congregation of people in a given community and are not made by human labor. If population wanes in a town, land values are sure to decline. From this it will be seen that land values are based upon the special privilege of excluding other people from the land, until they are willing to pay a profit to its holder. It is because these profits are large that so many home makers cannot afford land enough to properly ventilate their rooms. You can see virgin farm land just on the outskirts of our cities, adjacent to suburban lots, squeezed down to a width of only twenty feet. The speculator has only to hold his vacant land until the increasing pressure of the population spreading out from the center of the city makes the use of his land so necessary, that he can ask his own high prices.

Digitized by Google

Private Land Values

"We all have a proper respect for private property in this country, and for the protecting of every citizen in the enjoyment of the products of his labor, but this is no reason why private land values, which the holder has done nothing to create, should be protected. It must be clear to all that land values in a city are created by society itself, and, therefore, society should demand for all the people a share of this 'collectively earned increment,' which is often referred to as the 'unearned increment.' Excessive land values mean that certain people are allowed to monopolize the light and air so that little children must suffer for a lack of sunlight and ventilation. The same policy that is now used for controlling railroads could, and undoubtedly will, in time, be extended to control speculative land values which cause more injury to the people than any other form of unlimited private ownership of public necessities.

"Some European cities have already established a system of supervision in regard to their land which is based upon such principles as sustain our Interstate Commerce Commission. More than one hundred years ago, Goethe said at Heilbromm, 'A town is prosperous through the land which it possesses, more than through any other consideration—the best token of a good administration is that a town is going on buying land.' We find Prussian government today urging all German towns, which have already large areas of land, to continue and extend this policy of land purchase. There is no doubt in my mind that a well thought out land policy is essential for the solution of the housing problem that exists in so many of our municipalities. Land purchases should be extensive. Frankfurt, Mannheim, Hanover, Strassburg and Freiburg, all own from one-third to one-half of all the land in their precincts. Municipal land could be used in the following ways:

"'A,' sold with restrictions to prevent the misuse or excessive speculation.

"'B,' built on by the municipality itself, as has been done by Strassburg, Freiburg, and Schweinfurt, where municipal dwellings are let.

"'C,' leased to individuals or companies, but preferable to societies of public utility.

Error of Our Land Policy

"The injustice and social unwisdom of our land policy in as far as it gives to the holder of vacant land, rather than to him who makes it beneficial to the community by erecting a residence upon it, is appreciated in Germany. Land is the crux of the whole housing problem. Dwellings, unlike land, are the produce of the human toil and should not bear the heaviest burden of taxation. If vacant land is taxed upon its full selling value there will be less vacant land and more houses.

"We can replan our congested city blocks and not spend all our money on parks and boulevards. Any scheme of the city planner that does not include the homes of the congested districts should fail. Rear tenements, caused by the deep lot, which was a proper one when the rear portion was used as a garden by the rich, must be eliminated by replanning or block reconstruction. Dead-end alleys or narrow streets must be cut through to the main thoroughfare, thus reducing the opportunity for crime and giving thorough ventilation. Why talk about radial streets if they are not to tap the slum sections? Instead of doing these things in a scientific manner, we do a little here and a little there in a piecemeal and extravagant fashion, and this is accepted as satisfactory by those who do not know how much better things are managed elsewhere.

Districting a City

"The city should be divided into districts with different restrictions for each district so that in the future we will not have to contend with these same problems. In the center of the city is the proper place for high buildings, and in the resident districts the buildings should be lower and not so close together. Why have wide expensive roadways in the residential districts where the traffic is light? It only increases the cost of the abutting dwellings and does no good; but on the contrary, it causes dust and germs to be blown into the houses. How much better it would be if this additional width of street could be parks and used as yard space. The natural place for shops is on the main thoroughfares where the rents of course will be high, but they will do more business and therefore will be able to pay it.

"All parks, playgrounds and open spaces should be situated on cheap land. Much money is wasted by using valuable frontage for park purposes, when it would be more comfortable and healthful if they were away from the noise and dust of the street. They must be near at hand, and therefore, should be put in the rear of the houses so that the mothers of the poorer classes will not have to take their children far from home.

"The ground rent is quite an item in a poor man's house, and this is due to the fact that poor people live on expensive land and the rich live on cheap land. Those

Digitized by Google

responsible for the management of our social affairs should recognize this unfortunate situation and adjust it as far as they are able to do so.

Intensive Use of Land and High Prices

"It is now a well known fact that where the law allows the largest number of rooms to be erected on a given area of land, the price of such land and the adjoining land is forced up to a high figure far above the real value. The price of land in a suburb with two-story detached houses erected on it is no more expensive than suburban land covered with block tenement houses. In other words, intensive use of land forces up the price, and high prices call for intensive use of land. The proposal to limit the number of houses per acre is good as far as it goes, but in the long run it would be of little use because houses may be of any size. A maximum number of rooms per acre should be prescribed, varying with the situation of the land, its cost and its distance from the center.

"The developments that are taking place in the transmission of electric power point to big improvements in solving the housing problem by cheapening and improving the means of transit for both goods and passengers, and this will tend largely to destroy obstacles of time and distance, rendering it necessary to crowd factories together in certain areas or cause undue concentration of population in certain districts. On the other hand, transit alone in some instances has inflicted on us poorly built suburban houses of the wrong type, and has inflated the prices of the land for the benefit of the speculators, who too often receive the difference between the rent paid on the dear land in the center and the true economic ground rent that should be paid for the agricultural land on the out-skirts. Hence, it is vitally important that the control and ownership of suburban land should be more in the hands of the community that at present.

Control of Raw Materials of City Extension

"One and the same authority should have powers over transit, land and housing, which we may say are the raw materials of city extension. If the authority that supplies the house could also supply or control the means of communication and acquire the land at its original value before so equipping it, or before indicating that it was to be so equipped, then the rent charge to the tenant need only consist of the sum sufficient to pay working expenses and a reasonable return on capital outlay, which would be comparatively small in respect of land, and would, therefore, enable the community to give or secure a liberal allowance of garden and other open space for the various dwellings.

Cheap Fares in Belgium

"It is possible for town laborers in Belgium to live in remote rural districts and travel daily to and from their work, owing to the cheap fares and weekly tickets issued by the government for the express purpose of binding rural dwellings and town industries together. Excessive prices for land in urban centers, and the erection of block dwellings have been largely checked on this account. Some journeys last three hours on these Belgium roads. This, of course, is too long. The fares are 37½ cents per week for a twenty mile double journey each day; 50 cents a week for a forty-four mile and 62½ cents a week for sixty-six miles. Cheap fares in Belgium have stopped the depopulation of rural districts and the congestion of towns in a very large measure. They have by opportunities for extreme mobility enabled ownership of dwellings by workmen to be carried out on a large scale with less objections on the score of restricting opportunities for work.

Environment and Child Life

"A few years ago some striking facts were given out after a very careful study as to the influence of environment on child life. The boys at the workmen's garden suburb schools were on the average four inches taller, and their chest measurements three inches greater than those of the boys of the same age who attended the public schools in the manufacturing city, which was only three miles distant. The result of Dr. Arkle's investigation was that the sons of the artisans and laborers under good housing conditions produce superior height and weight at equal ages to that produced in the high schools among the children of the well to do citizens of the city. In Glasgow returns were made of 72,857 children; 36,883 boys and 35,974 girls. Not only were their height and weight taken, but particulars as to their housing and general physical surroundings were also obtained. The schools were divided into four groups; the poorest, poor, better class and high class. As soon as a child was found in the first class, poorest, he or she was lighter and smaller than the children from the other

Digitized by Google

districts, but when the children were classified according to the number of rooms in the house in which they lived, then the most striking results were obtained. The report states 'It cannot be an accident that boys from two roomed houses should be 11.7 pounds lighter on an average than boys from four roomed houses, and 4.7 inches smaller. Neither is it an accident that girls from one roomed apartments are on the average 14 pounds lighter and 5.3 inches shorter than girls from four roomed apartments.'

"The war on infant mortality must be won. Every municipality should see to it that periodical house-to-house inspections are made for the purpose of preventing room overcrowding. No family should have less than three rooms, and any city that does not insist upon each citizen having at least 400 cubic feet of good air will surely have a high tax rate for the maintenance of prisons and asylums.

Intemperance and Bad Housing

"Intemperance is caused by bad housing conditions in very much the same way as pauperism. The saloon is attractive. The saloon preaches the lesson of hospitality. One writer says, "Out of one million children born each year, 140,000 of them die before they are twelve months old. Infant mortality, which almost always varies with housing conditions, is still too high.' Although children under five years of age are only one-ninth the population, they furnish one-third the deaths. In one city where people were badly housed the infant mortality was 331 per 1,000 births, while in a garden city for working men, just outside the same town, it was 65 per 1,000 births. Or, in other words, the infant that is poorly housed has five chances to die before it is one year old against one chance if it lived in a properly housed workmen community.

"One of our greatest tuberculosis experts says, 'The most striking feature about the communicability of tuberculosis is that it depends almost entirely on the house.' I say, until housing conditions are such as to make it possible for a man to live in decent and healthful quarters, just so long will we have a high death rate from tuberculosis. It is senseless to teach people how to avoid contamination if they must live in dark rooms where precaution avails nothing.

Crime and Bad Housing

"There is a very close connection between crime and bad housing. Dr. Elisha Harris, who made a study of this question, says, 'The younger criminals seem to come almost exclusively from the worst tenement house districts.' The yardless tenements, with their dark halls, cause physical and moral conditions that predispose them to criminality. Then, again, when the home consists of only one or two rooms, and these must do service for living, sleeping and dining rooms, as well as for a laundry or garment working shop, it is no wonder that the tired mother of six or seven children is glad when her children go out into the dark passageways and courts of the tenement house, and thence into the street. In some of the poor housing districts that I have inspected, almost everybody was a habitual drunkard because their blood was charged with excess of carbonic oxide, caused by bad houses which the state should not permit to exist.

"It should be self-evident to everyone that if we do not have the proper supply of dwellings at a proper rental, we are sure to have overcrowding, with all its attendant evils. Even some of our small villages have a house famine. Many of our large cities have plenty of good dwellings at rentals running from $15 to $25 per month, but they do not realize that it is necessary to provide homes that are constructive and not destructive for the family that can only afford to pay a rental of $7.50 per month. Everyone who investigates housing conditions thoroughly will realize that the individual tenant is helpeless because the average man must take what the landlord offers him. The law of supply and demand does not work in this case, because the supply is inadequate. The poorer and cheaper the accommodations the more certain they are to be occupied; therefore, wholesome and progressive standards can only be effectively enforced through proper control by the city, state or nation.

The Plumbing Code

"You cannot go far in trying to solve the housing problem without coming face to face with the plumbing code of your city. Does it require a sink with running water in every apartment? Does its requirements permit eighteen people to use one yard hydrant, which is probably frozen three months in the year? Are privies outlawed, or are these relics of barbarism still permitted to exist under the windows of the homes of your citizens? If they do exist, you can be sure of a high death rate from contagious diseases caused by the common housefly. Perhaps your plumbing code still permits vile surface drainage that fills the air with bad odors in summer and causes the people to

Digitized by Google

break their limbs on ice in winter. Are you sure that all your plumbing is properly trapped and ventilated? Does your city belong to that class of municipalities that think every family should have a bath tub, or does it believe that the poor would use it for the storage of coal and ashes?

"It is by means of a good building code that future slums can be prevented. Instead of permitting people to build as they please, just as long as they build safely, from a structural standpoint, we must say you can only build upon sixty-five per cent of your lot, and you must not build so high as to rob your neighbor of his sunlight. No one should be permitted to have a monopoly on light and air. Then, again, your building code must stop the building of houses several rooms deep, unless there is sufficient room between houses to permit the sunlight to enter the middle rooms. It is this that causes dark rooms. Again, the code should see to it that no basement may be altered or fitted up for living purposes. Last, but not least, the building code should see to it that all large dwellings, say those that are intended to be occupied by three or more families, should be fire proof throughout and have tower fire escapes. Excepting in a few of the larger cities in this country, it is not necessary for people to live in large tenement houses, and even in the city of Philadelphia, with a million and a half people, we find one million people living in small houses.

Instruction in Housing

"It has often been said by people who should know better that we would have little, if any, housing problem if it were not for the immigrant. I wish to say that in many cities some of the worst housing conditions are to be found among the negroes and the native-born whites; and even if this were not so, it is both our duty and to our advantage to see that the immigrant is properly housed. They are our future citizens, and they are also needed as a leaven to the native white people. Every city should have a division of housing, whose business it would be to give information and suggestions to private builders and landlords on housing matters. This division might maintain a card index showing how many houses and rooms are available at all times. The police force could also be utilized in spreading the good news. Why should the police be looked upon as a sort of local militia? Instead, we should consider them in the same class as sanitary inspectors, teachers and other public servants who do positive rather than negative service.

"No housing policy would be adequate if it did not provide for playgrounds, but on the contrary there has been a great deal done in the past along the lines of playgrounds that has not considered the homes of the boys and girls. I assume that the establishment of playgrounds for our children is for the purpose of improving their health, as well as keeping them off the streets, where they will soon get the gang habit, which leads to crime; therefore, I say that no playground policy should be adopted that does not include a campaign for better housing. Why develop a child's body in the open air and sunlight during the day and send him to an overcrowded, damp room, perhaps one into which the sunlight never penetrates, for a night's rest?

"The community must become conscious of its influence in the situation. It might be proper to suggest the calling together of a great national housing congress, representing all section of the country and to consist of men and women of all shades of political opinion, and this congress should draft certain points of reform and present them to his excellency, the president of the United States, who in turn should appoint a commission to study the whole question and present the results with his recommendations to congress. I am sure national housing commissioners, to assist and stimulate the local authorities, would go far toward solving many of the housing troubles that our local communities now have to contend with."

Heavier Taxation on Land Values

Benjamin C. Marsh

Benjamin C. Marsh, executive secretary of the Committee on Congestion of Population in New York, said: "Good housing at reasonable rents for wage earners in American cities cannot be provided while we continue our present policy of taxing buildings at the same rate as land. It is both bad economics and bad morals to penalize a man by heavy taxation for putting up buildings, while encouraging land speculation and the holding of land out of use, by taxing land at as low a rate as buildings. This is, however, what American cities are doing, with the inevitable result of high rents, for poor or indifferent housing at best.

"What is 'good housing'? The following standard of housing for the British workman given by Alden & Hayward in their book, 'The Housing Problem,' should be adopted in American cities: 'The minimum for the average working man's family is a cheap but well built house, with four or five suitable rooms, together with a quarter-

Digitized by Google

acre garden, or at least a fair-sized courtyard. The site should be a healthy one, and the house perfectly sanitary, well lighted, well ventilated and well drained.' No large American city meets this standard.

"What are 'reasonable' rents? This may be answered in two ways—first, the usual answer, one that does not exceed a certain proportion of the family's income; and, second, one that does not afford more than a certain net return on the value of land and the cost of buildings—two distinct commodities.

"The two answers, however, cannot be, in fact, disassociated. With a lower rent, wages which are adequate for maintenance with a higher rent can be reduced without any injury to the workmen, and in such case the ratio between income and rent will inevitably be different from the ratio with high rents.

The Fundamental of a Reasonable Rent

"Land owners are not entitled to the same net return on land as on buildings. The recognition of the fact that land owners are not entitled to the same net return upon land values as upon their investment in buildings is fundamental in determining what is a reasonable rent. A concrete instance will illustrate this: If a wage earner rents a house worth $1,200, on a lot worth $500, 6 per cent net return to the owner means a charge of $102, of which $30 is the ground rent. If the landowner, however, is entitled to only 2 per cent net return upon the cost of the land—that is, $10, instead of $30—then the excess of ground rent of $20 is unreasonable rent. With a tax rate of $4 on the full assessed land value alone the owner would pay only $20 in taxes, while with a uniform tax rate of $2 on land and buildings he would have to pay $34 a year, so he saves $14 on taxes.

"That the landowner is not entitled to 6 per cent net return on land values which he has not created is as apparent as that a laborer is not entitled to be paid three times as much as the value of what he produces. The only way, of course, that the city can effectively reduce the ground rent charged by land owners is to increase the tax rate on land and take all taxes off buildings, personal property and industry of every kind. If a wage earner wants to own his own home, also worth $1,200 on land worth $500, a tax rate of $4 per $100 on land alone assessed at full value will help him just as it helps the owner who rents the building.

Exemptions of Buildings and Industry

"Of course, taxing land values heavily enough to secure most of the ground rent and exempting buildings and all kinds of industry in cities from taxation will not make dark rooms and unsanitary tenements fit for human occupancy. They must be vacated and kept vacated till they are fit. It is consummately stupid, however, to discourage a man from putting up decent tenements and houses by taxing him heavily for so doing, but all American cities persist in this policy.

"Exempting buildings and industry from taxation permits payment of better wages. Manufacturers and all employers of labor, as well as wage-earners, will be benefited by exempting buildings and industry from taxation, because they will pay less taxes and can pay better wages and still make higher profits. The heavier tax rate on land will also make land cheaper. Foreign methods of taxing land values. Most foreign cities, as a means of taxing land values so as to relieve buildings from taxation, have adopted the partial method of securing part of the increases of land values. This alone is not satisfactory, because it doesn't go to the root of the matter and reduce the unearned receipts of landowners from the existing values due to the presence and industry of the city's population and improvements made at the city's expense. German cities have usually a progressive land increment tax levied at time of transfer, but this yields only a small irregular return. England's land increment tax is to be used for national purposes. A few Australian cities have a higher rate of taxation on land than on building, while in Paris and some other French cities 'model tenements' are exempt from taxation for a series of years.

English Recommendations

"The English royal commissioners on housing recommended in 1885 taxing 'land available for building' outside of towns at 4 per cent on its selling value. The minority report of the English royal commissioners on local taxation, in 1901, recommended that: '(1) Sites should be separately valued from structure; (2) site can bear heavier taxation than structure, but all existing contracts must be rigidly respected; (3) there should be a special site value rate; (4) this should be charged also on (a) unoccupied property, and (b) on uncovered land.' Nearly every housing expert in England and on the continent urges heavier taxation of land than of buildings, and many of them a land increment tax as well.

Digitized by Google

"The New York City Commission on Congestion of Population recommended making the rate of taxation on all buildings in New York city one-half the rate of taxation on all land, and that this be done by five equal reductions in five consecutive years, beginning in 1912. A bill providing for this has been introduced in the legislature, but was defeated by the influence of real estate owners, especially owners of vacant land, although it was endorsed by labor unions and civic, commercial and philanthropic organizations with a total membership of over half a million. To secure good housing at reasonable rates, however, in American cities, the tax on buildings and industry must be reduced gradually till they are entirely exempt, and most of the ground rent of a city gradually secured by increasingly heavy taxation of land values."

Digitized by Google

Taxation

Tax Experts by Selection

Harrison B. Riley

Said Harrison B. Riley, of the Illinois Tax Commission; president of the Chicago Title and Trust Company, and presiding officer of the conference: "Great difficulties exist in this and other states in securing an equitable assessment of property. It is a difficult thing to make American citizens appreciate the fact that their liberties are not necessarily best preserved through the use of an elective system to all offices. You never get expert assistance in any other way except by selection, not by election; and so, the first demand that was made in Illinois, and turned down almost unanimously, was an appointive system of assessors, headed by an individual, or a board—a board having the power to hire and fire; having the power to educate, to instruct, to punish, to discharge; the opportunity and the power to collect statistics, to get together the combined wisdom of all the workers in the field; instead of which, at the present time each little community elects its own assessor, and if this assessor does one-half of his duty he never dare be a candidate for re-election. He is not protected against his constituents; he is never educated from above; he has no attorney to advise him as to the law and no skilled man to advise him as to the details of the profession which he practices.

"In a few states of the Union they have gotten a start in this direction, and we look for the educational value of the service in New York with great hope. It will take many years for them to get west of the Alleghanies, but to those of us who have studied more or less the administrative system situation of assessment and collection of taxes, we turn eventually to the city of New York, where a man is at the head of the system, whose subordinates take orders, take instructions, learn, and are backed up in the performance of their duties; and, ladies and gentlemen, it affords me a great deal of pleasure to present to you Mr. Lawson Purdy, commissioner of taxes and assessments of the city of New York, who, to my knowledge, is doing the greatest work on the administrative side of the subject of taxation that has been or is being done in the United States." (Applause.)

Co-operation and Uniformity

Lawson Purdy

Said Mr. Purdy: "I cannot forbear endorsing what the chairman has said about the necessity of appointing and not electing assessors. Another step should be taken. All subordinates should be appointed under the merit system and should be removed only for cause. I believe we have in the city of New York a very good assessing department. It has been said by others that it is the best system in the United States. I won't say that, but I know that it is good; it is good because the men who do the work of assessing are appointed as the result of civil service examinations, rigid examinations, and they are not discharged except for cause. The average term of service of men performing those duties in the city of New York today is about twelve years. A number of them have been in the department for twenty years and over.

"The executive head is appointed by the mayor, consisting of a board of seven, appointed by the mayor and removable at the pleasure of the mayor. The people control the policy, through the mayor's appointment. The details are carried out by men who make it a profession. Furthermore, you must adequately pay such men. Our salaries today for men performing the duties of assessors, who hold irremovable positions, are $2,400 to $3,500 a year, and men doing executive work, who are also irremovable, in the department, receive $4,000 or $4,500.

"Although for many years the states have co-operated in one way or another to secure uniformity of legislation on matters of common interest, and state officials have conferred together to bring about various needed reforms, it was not until ten years ago that any effort was made to bring together representatives of the several states to confer on the subject of local taxation.

National Tax Association

"In 1901 a conference on taxation was held under the auspices of the Civic Federation, but no permanent organization was formed which would carry on the work. In 1906 the National Tax Association was organized for the sole purpose of securing the

Digitized by Google

co-operation of all the states in the study of state and local taxation and in giving to any state the results of the experience of all the others and the best thought of administrators, legislators and students of the subject.

"At the request of Mr. Allen Ripley Foote, president of the National Tax Association, the Hon. Andrew L. Harris, governor of Ohio, invited the governors of the several states to send delegates to a conference held at Columbus on Nov. 12, 1907. In response to this invitation delegates representing thirty-three states and three Canadian provinces attended the conference, many of them being state or local tax officials. The presidents of universities were invited to send delegates, and many universities were represented. Four governors of states were present. The conference was in all respects successful, and since then a conference has been held each year, the fifth being held in Richmond, Va., in September. At all the conferences from thirty to forty states have been represented.

Conference of Experts

"The National Tax Association calls the conference, arranges the program and publishes the proceedings, but exercises no control over the conference. Only delegates appointed by governors and presidents of universities are entitled to vote. From the first it has been understood that no resolution would be pressed to a vote unless it represented the substantially unanimous conclusions of all present. In the last four conferences there has not been a single dissenting vote on any resolution expressing the opinion of the conference. In spite of this extreme conservatism the resolutions have dealt with important problems and expressed convictions clearly. The conferences have considered many details of tax legislation, but it is not my intention to review the history of the conferences in detail, but only to present certain broad and fundamental propositions which lie at the root of local taxation in American states.

"Good systems of taxation have never been made to order. They grow out of the history and environment of the people. If that statement is accepted it follows necessarily that no people are competent to frame in a constitution the details of a tax system. If by any chance it happened to be what the people then wanted, in a year's time it would not be what they wanted. The constitutions of some twenty-five or more of the states contain similar ironclad rules to that of Ohio, which provides that, 'Laws shall be passed taxing by a uniform rule all moneys, credits, investments in bonds, stocks, joint stock companies or otherwise; and also all real and personal property according to its true value in money.' The constitution of Illinois is much the same, and Minnesota copied from Illinois. Fortunately Minnesota saw the error of her ways in 1905 and struck out the limitations.

Restrictive Constitutional Provisions

"A provision in the constitution like that of Ohio binds the state down to all the abominations of the general property tax. The first tax conference devoted much time to the evils of constitutional restraints and of the general property tax. Finally without a dissenting voice the first conference resolved:

> "'That all state constitutions requiring the same taxation of all property, or otherwise imposing restraints upon the reasonable classification of property, should be amended by the repeal of such restrictive provisions.'

"That resolution was unanimously reaffirmed at the second conference, and running all through the proceedings to the fifth conference there is the unanimous sentiment, plainly apparent, that constitutional restraints which require the uniform taxation of all property should be abolished as soon as practicable.

Progressive Oklahoma

"Since the formation of the National Tax Association, the Oklahoma constitution has been adopted and the Oklahoma constitutional convention took the advice of the National Tax Association and included in its constitution substantially the language recommended by the officer of the association, which does not restrain the state from any reasonable classification of property for taxation. The association presented memorials to the constitutional conventions of New Mexico and Arizona. Arizona took our advice. Since the first conference constitutional amendments have been considered by legislatures of a number of states and in some are in process of adoption. Ohio has called a constitutional convention, which will meet next January. The main reason for the call was the necessity for amending the tax provisions of the constitution.

General Property Tax No Longer Sacred

"The general property tax was almost an object of worship fifty years ago, but it has been most gratifying and encouraging to find that hardly a delegate who has spoken

Digitized by Google

at these conferences has had a good word to say for the general property tax. It seemed as though all of them took particular delight in pounding the general property tax whenever they had a chance. This is as it should be, for it is the cause of most of our tax woes. The more we can bring the general property tax into contempt and execration the sooner we shall arrive at some reasonable condition.

"The third conference requested the association to appoint a committee to investigate the failure of the general property tax and to set forth whether the failure is due to inherent defects in the system or to weakness in its administration. The following named persons constituted the committee:

"Hon. Oscar Leser, of Baltimore; Prof. Edwin R. A. Seligman, New York; James C. Forman, Esq., city assessor, Ontario; Hon. Nils P. Haugen, Madison, Wis.; Hon. Frederick H. Judson.

"They reported to the fourth conference. The report is brief, terse and effective. The committee first described the various attempts which had been made at stringent administration, and quoted from the report of the special tax commission of Ohio, appointed in 1893. From the report of that commission they quoted again the oft-repeated and admirable characterization of the substantial results of the general property tax. It will bear repeating.

> "'The system as it is actually administered results in debauching the moral sense. It is a school of perjury. It sends large amounts of property into hiding. It drives capital in large quantities from the state. Worst of all, it imposes unjust burdens upon various classes in the community. * * * This inequality of taxes weighs most heavily upon those whose thrift and prudence have resulted in affording to themselves or their children a competence. It is evident that this burden rests with peculiar force upon those persons whose scrupulous honesty induces them to make full and complete returns of all their property.'

Indictment of General Property Tax

"The committee next reviewed the opinions of investigating commissions, quoting from the reports and stating the conclusions of nine of twelve commissions, which have reported during the last five years. None of these commissions expressed the opinion that the strict enforcement of the general property tax would cure the evils which they all found to exist. The committee then considered the defects in theory of the general property tax; the imracticability of its enforcement; the injustice which would be produced if it were strictly enforced, and finally the committee summed up as follows:

> "'That the general property tax system has broken down;
>
> "'That it has not been more successful under strict administration than where the administration is lax;
>
> "'That in the states where its administration has been the most stringent, the tendency of public opinion and legislation is not toward more stringent administration, but toward a modification of the system;
>
> "'That the same tendency is evident in the states where the administration has been more lax;
>
> "'That the states which have modified or abandoned the general property tax show no intention of returning to it;
>
> "'That in the states where the general property tax is required by constitutional provisions there is a growing demand for the repeal of such provisions.
>
> "'We conclude, therefore, that the failure of the general property tax is due to the inherent defects of the theory;
>
> "'That even measurably fair and effective administration is unattainable; and that all attempts to strengthen such administration serve simply to accentuate and to prolong the inequalities and unjust operation of the system.'

"After the report of the committee was considered the conference adopted resolutions by unanimous vote, endorsing the conclusions of the committee. The last resolution dealing with the subject was as follows:

> "'That the failure of the general property tax, in its application to personal property, is due to the inherent defects of its theory; that even reasonable fair and effective administration is unattainable; and that attempts to strengthen such administration simply accentuate the inequalities and unjust operation of the system.'

Modifications in General Property Tax

"Important modifications have been made in the general property tax in various states, and this may be in large part due to the tax conferences. The state of New York has abolished the general property tax as to bonds secured by New York mortgages,

Digitized by Google

and bonds and other secured debts not secured by mortgage on real property in the state of New York. On such evidences of debt a tax is imposed of one-half of one per cent once, which exempts the debt until maturity.

"The state of Iowa has imposed a tax on all moneys and credits of five mills and permitting the offset of debts as heretofore.

"The state of Minnesota has withdrawn moneys and credits from the general property tax, and imposed a tax of three mills without offset for debts.

"The states of Minnesota and Michigan have copied the recording tax act of New York, by which mortgages are taxable one-half of one per cent at the time of record and are exempt thereafter.

"Numerous improvements have been made in the administration of the law as a direct result of the conferences, and changes in the law itself designed to improve the administration have been made in a number of states, including the requirement that land shall be separately assessed from the improvements in all the cities in the state of New York.

"The conferences have dealt effectively with many phases of taxation, but in no case has their action been so important and at the same time effective as in the case of the inheritance tax. At the first conference a resolution was adopted demanding that the federal government leave inheritance taxation exclusively to the states. And another resolution declared that inheritance tax laws should be so amended 'that the same property shall not be taxed by two jurisdictions at the death of the owner.'

Double Taxation

"A committee was appointed to prepare a model inheritance tax law. This committee reported in 1910 and submitted a draft of a proposed law. In the course of the report the committee said: 'A most flagrant offender in double taxation under the inheritance tax law is the state of New York. The act passed by the legislature of 1910 permits double taxation to the extent of twenty-five per cent of certain bequests in excess of $1,000,000, even if this same property may have been subject to a tax of fifteen per cent in any of four states which might have been the domicile of the decedent.'

"The plan adopted by the committee to prevent double taxation is to tax all the tangible property of the decedent where it is located and for the state of the decedent's residence alone to tax the transfer of his intangible property. A bill to amend the law of New York, drafted in accordance with the recommendations of the committee, was introduced in the legislature of 1911 and enacted. The committee which made this report was as follows:

"Hon. William H. Corbin, E. L. Heydecker, Hon. Lawson Purdy, Joseph H. Underwood, Prof. Charles J. Bullock, S. S. Huebner and A. C. Pleydell.

"The chairman of the committee, Commissioner Corbin of Connecticut, after extensive correspondence with administrators of inheritance tax laws in other states, expressed the opinion that the legislature in New York had had the widest influence in other states, and that if New York adopted this important reform its action would speedily be followed by other states.

"It is the function of the National Tax Association to bring to the attention of administrative officials and legislatures the New York amendments to the inheritance tax law, and in general the proceedings of the conferences in order that each of the states may have the advantage of the collective wisdom of all of the states; that the tax association may do its best work it must have an influential membership in every state of the Union. The terms of membership are light and may be ascertained by addressing the National Tax Association, Board of Trade building, Columbus, Ohio."

Puzzles of the Problem

Chairman Riley, continuing the discussion, said: "A perfectly ideal system of taxation might probably be said to be one where each individual was compelled to pay exactly the same amount as each and every other individual. The only difficulty with such a system would be the amount of defaults would be so great that you would not produce the revenue. Remembering always that the ultimate result to be obtained is revenue, and finding that when the assessment is made by the head it produces little or nothing, those who had property were convinced that a man should pay taxes in accordance with the property which he happened to have, on the theory that he had a larger proportion of the general protection afforded by government. Sometimes that works; sometimes it doesn't. The poor man, with eight children, will get more benefit from the schools than the wealthy bachelor; but even at the best, with that departure from the principles of equality, another situation was speedily developed, and that was that where a man owned real estate or fixed or tangible property and he couldn't get away from it, that was the man that was taxed; that the man that holds intangible property—bills, bonds, money—knows that those things which could not be perceived by the

Digitized by Google

senses, were easily secreted and easily removed; and that the possibility of collecting from that class of property was nil, or at best could only be enforced against those sturdy Puritans who would rather tell the truth and pay taxes than tell the other things and face the penitentiary for perjury.

"Now, there has been discovered that there is another modification which must and should be made in respect to taxes, and that is following along the line which we proceeded on first, of abandoning the individual system of property tax according to the ability of the individuals to pay by reason of owning property; then we go one step further, and that is the possibility of collecting from the persons that have property and the capacity of the property itself to bear and pay taxes. To illustrate very briefly, it is the habit in Chicago and other places to sell municipal bonds, city and village bonds, a four per cent bond. The rate of taxation wavers somewhere between one and one-half and two per cent annually. It is obvious that a four per cent bond cannot stand one and one-half or two per cent taxation, and it is also perfectly obvious that it doesn't. Notwithstanding that we market millions of them here every year, no one has ever had that exalted honesty which permitted forty or fifty per cent of the income from a municipal security to be absorbed by the tax gatherer.

The Dollar in Bank

"It has been proposed in Illinois and many other states to remove the contsitutional restriction which requires exact uniformity; that a dollar in bank shall pay the same rate as a dollar in real estate; because it is evident that a dollar in bank will not stay in the bank if it is taxed any such amount. There is, somewhere along the line, a rate, and that a specific rate, which intangible property will pay and stay inside of the jurisdiction; and, if backed up by a vigorous administration, there is always to be found, in several ways, personal property, somewhere in its career, where it can be intercepted and the penalties imposed for not paying taxes; and with that end in view, it was urged at the last session of the legislature in Illinois, that all restrictions in respect to the power of the legislature over revenue be abandoned, except one, and that is that the same class of property pay an equal tax, in whosever hands it happens to be. The legislature did not see it that way, and, as legislatures sometimes do, they did nothing. Other legislatures have taken this matter up, urged on by such gentlemen as our next speaker, who has devoted a lifetime to this work, not only in his own native state of Ohio, but also in other states. He has a great capacity for starting thought on these subjects, and if we had about a million more like him in Illinois, I think we could even get something up to the legislature that would interest them. We have been at it since 1885, and our progress up to date, as I stated before, is nil. I hope that, from the words that will be spoken this afternoon, that others will be added to this band of citizens of Illinois, who keep plugging away, notwithstanding twenty-five years of absolute inertia on the part of legislative authorities. I have pleasure in presenting to you Lieutenant Allen Ripley Foote, who has been engaged, as I say, in this work, and with great success, almost a lifetime."

Requirements of a Just Taxation System

Allen Ripley Foote

Said Mr. Foote, President International Tax Association, and President Ohio State Board of Commerce, Columbus, Ohio:

"Administration of tax laws is the most important function of government. Two tests must be applied to all tax laws to determine their economic effect: (1) Their effect upon the taxpayer; (2) their effect upon the general welfare.

"All taxes are paid out of property. Property is anything of value a title to the ownership of which is held by the consent of society. Society cannot exist without government. Government cannot exist without sufficient revenue for the payment of its expenses. Therefore, society withdraws its consent from the private ownership of so much property each year as is necessary for the support of government. Through the collection of taxes government puts its hand into every person's pocket and, with or without his knowledge, takes from him a part of his money, his property. The power of taxation is a sovereign power. The jurisdiction of a sovereign should be coterminous with the subject taxed, so that the same subject shall not be taxed by two or more sovereigns at the same time.

"Ad valorem taxation is imposed by constitutional provisions upon the legislatures of some thirty-five states, requiring the taxation of all property at full value. In these states a more satisfactory system cannot be adopted, no matter how much it may be wanted, until freedom of action has been gained for the legislature through appropriate constitutional amendments. The ad valorem basis of taxation, as applied under authority of the general property tax, requires a complete valuation of all property to

Digitized by Google

be taxed at stated intervals. Methods for making this valuation are not the same in any two states. No method adopted has been administered to the satisfaction of the people.

The Vice of "Playing Politics"

"Where there is the most intelligent and kindly disposition to be entirely fair with each other on the part of those who attempt to administer the tax laws of the state, and on the part of those who pay the taxes, inconsistent, unscientific, uneconomic and unjust provisions found in laws for the taxation of all property render it almost impossible for them to work in harmony and to reach amicable agreements on all of the multitudinous details involved. In addition to technical and legislative difficulties inseparable from the problems of administration, we sometimes find legislators and administrators of tax laws inspired by a desire to 'play politics' with the subject by attempts to favor one class of taxpayers, which can only be done by showing disfavor to others. They do not seek justice in taxation; they seek political capital.

"We hail the coming of the day, now clearly discernible, when through the work of annual state and national conferences on state and local taxation, it will be made impossible for any party to make a political issue out of questions of state and local taxation; when all such questions will be discussed and settled on their merits as problems of economic efficiency; when the policy of taxation, as well as all methods of assessment and collection, will be adopted with direct reference to its economic effects upon those who pay the bills and upon the general welfare. By means of these conferences a taxation system can be formulated designed to promote industry, thrift and enterprise, as a means of promoting the general welfare.

Determining the Tax Rate

"Valuation and rate determine the amount of a tax. The total valuation of all property listed for taxation, and the amount of revenue required, determine the tax rate in every taxing district. The total valuation of all his property listed for taxation, and the rate, determine the amount of tax each taxpayer must pay. The amount of his tax is the same proportion of the total tax as the value of his property is of the total valuation. When all property is listed for taxation at full value, all other conditions remaining unchanged, the tax rate will be one-half what it would be if the property had been assessed at only fifty per centum of full value. The amount of the tax will be the same in both cases. The only thing gained by under valuation is an extra computation and a high tax rate.

"Under this system, justice for the taxpayer requires that all taxable property located within the jurisdiction of his taxing district shall be listed for taxation at the same per centum of full value, and that the amount of revenue required shall be no more than sufficient to provide for all governmental purposes efficiently administered. To establish justice in taxation there must be formulated, developed and maintained a thoroughly scientific system for the listing and valuation of property, and an equally scientific system for the efficient expending of and accounting for all public funds.

Essentials in a Taxing Officer

"The public service required in the departments of assessment and collection, and of expending and acounting, should be recognized and dealt with as professional service, from which all partisan political considerations should be excluded. Those entering these services should be selected, originally, by reason of their fitness to perform the services required. The term of service should be during good behavior and ability to perform efficient service. Their incentive should be reasonable compensation at the start, with a guarantee of a moderate annual increase for every year of service, and the further consideration that all promotions will be made from within the service. In this service experience is sure to develop ability.

"Taxpayers must be made to realize that it is possible to establish justice in taxation. They must know that the reason that there is injustice in the systems by which they are taxed is because they have left the formulation and development of those systems, if they can be classed as systems, to politicians instead of economists and accountants, and because they have not given sufficient personal attention to the subject to enable them to make an intelligent demand for the adoption of propositions based on careful investigations and experience, devised for the sole purpose of establishing justice in taxation.

Necessity of Competent Administrative Organization

"I affirm that it is easier to establish just taxation with a thoroughly competent administrative organization, operating under a bad law, than it is to accomplish this

Digitized by Google

result with an incompetent administrative organization operating under the best law that can be enacted. This is true because the law deals with values, not concrete facts. Value is, and always must be, only an expression of opinion. After using all the mathematical rules for determining values that have been or can be devised, there will remain a large margin of things that must be considered and done uncovered by fixed rules, the intelligent doing of which is dependent upon the exercise of judicial discretion on the part of the taxing official. This is why there is such a strenuous search for mathematical rules for determining values, and why there is such a peremptory demand for ability, experience and masterful supervision in all taxation administration work.

"What are the fundamental requirements of a just taxation system?

"1. All subjects of taxation should be classified according to their economic characteristics.

"2. The tax rate should be uniform, on all subjects included in the same class, within the jurisdiction of the authority levying tax.

"3. Specific taxes, assessed by mathematical rules on a specific basis, should be levied at fixed rates, determined with a due regard for their economic effect upon the initial taxpayer and upon the general welfare, in conformity with a fixed public policy designed to give stability to business conditions. Specific taxes should be substituted for ad valorem taxes whenever and wherever possible.

Ad Valorem Taxes

"4. Ad valorem taxes must be assessed annually at a rate determined by the total valuation of all property included in the ad valorem class, listed at full value, and the total amount of revenue required for the fiscal year, less the total amount of revenue and income derived from special taxes and all other sources. In other words, an ad valorem tax must be levied as a deficiency tax at a rate sufficient to provide for the full amount of any deficiency caused in any year by an excess of appropriations over the total amount of revenue and income derived from specific taxes and all other sources.

"5. The same subjects should not be taxed at the same time by two taxing authorities exercising initial jurisdiction.

"6. A county tax appeal court should be established in each county, as a division of a court of competent jurisdiction, to sit at such dates and to continue in session for such time as may be necessary to hear and determine all cases of taxpayer's appeals from the valuation fixed by the county tax commissioners, or by any deputy county tax commissioner, or deputy city tax commissioner for the county in which the property is located, or from a valuation fixed by the state tax commission.

Tax Appeal Court

"7. A state tax appeal court should be established, as a division of the state supreme court, to sit at such dates and to continue in session for such time as may be necessary to hear and determine all cases of taxpayer's appeals from decisions of county tax appeal courts, and all cases of taxpayer's appeals from the valuation fixed by the state tax commission when that commission performs the duties of original assessors.

"8. The filing and hearing of all tax appeals should be so regulated as not to interfere with the prompt and efficient collection of all taxes.

"9. Horizontal equalizations of total valuations between taxing districts should be abolished.

"The administration of all tax laws, state and local, should be centralized under the authority of a state tax commission composed of not more than three members, who should be selected and appointed for their ability to perform the service required, regardless of political affiliations or residential location. They should be commissioned to serve during good behavior and ability to perform efficiently the service required. Their compensation should be equal to that obtained by equal ability employed in private business, and should be subject to a small increase for each year of service. The administrative formation should be by counties, or such other municipal unit as the political subdivisions of a state may render most available.

The County Tax Office

"There should be one county tax commissioner for each county. There should be under the supervision of the county tax commissioner as many deputy county tax commissioners as efficient service requires, having jurisdiction over all assessment work within the county, outside of cities. There should also be under the supervision of the county tax commissioner one or more deputy city tax commissioners, as many as efficient service requires, having jurisdiction over all assessment work within cities.

Digitized by Google

"All county and other local tax officials should be selected and appointed for ability to perform the service required, regardless of political affiliations or residential location. Such officials should be commissioned to serve during good behavior and ability to perform efficiently the service required. Their compensation should be equal to that obtained by equal ability employed in private business, and should be subject to a small increase for each year of service.

Powers of State Tax Commission

"The state tax commission should have power:

"(a) To appoint all county tax commissioners and their deputies, and to remove the same at pleasure for cause.

"(b) To require efficient service, and a uniform administration of all tax laws by all subordinate tax officials, and to this end to formulate rules for their guidance and to instruct them in their duties.

"(c) To investigate and correct all valuations, however made.

"(d) To revalue by its own action, or to order a revaluation of, any parcel of property or of all property within a taxing district, or any subdivision of a taxing district, subject to ad valorem taxation, whenever it has reason to believe that such property has not been assessed at its full value.

"(e) To establish justice between taxpayers by decreasing or increasing the assessment upon any parcel of property that has been assessed at more or less than its full value.

"(e) To originally assess all special and ad valorem taxes in all cases over which the state has original jurisdiction.

Special and Direct Taxes

"Special and direct taxes create a community of interest for their class. An inspection of this administrative machinery will satisfy any one that it is well designed to promote economic efficiency in the work of administration, and to make justice certain for every taxpayer. Each class into which the subjects of taxation may be divided will create a community of interest for all taxpayers included in a class, and a larger community of interest will be created between all classes. A satisfactory relative adjustment of rates as between all classes, when once made, should not be ruthlessly disturbed at the demand of some spasmodic tax reform, or by some unregulated wave of popular opinion. In special taxation, stability of rates is as greatly to be desired as a relatively low rate.

"When the state substitutes a tax on local government revenues and incomes, as a deficiency tax, for a state general property tax, it will create a community of interest for the whole state as direct and as effective as that created by the assessment of a state ad valorem tax on all property. Every ad valorem taxpayer in the state will be given, by this means, a direct interest in the amount of state expenditures, because the state tax rate on local government revenues and incomes will be determined by the total amount of state revenue and income derived from special taxes and all other sources, less the total amount of state expenditures for all purposes. The larger the deficit, the higher the tax rate must be. An identical result will be obtained, by the same means, when the revenue required by the counties in excess of their total revenue and income derived from other sources is raised by a county tax levied on the total revenue and income of all local governments within the county. This will create a county community of interest between all ad valorem taxpayers in the county, as direct and as effective as the interest created by the assessment of a county ad valorem tax on all property.

"The classification of local government revenues and incomes as a subject for state taxation, and also as a subject for county taxation, will render the attempt to equalize the valuation of all property between counties for the state, and between taxing districts within counties for the county, by the horizontal method, wholly unnecessary.

Rules to Determine Values

"Arbitrary exercise of the power of taxation must be prohibited. An arbitrary determination of values for one taxpayer means an arbitrary determination of values for all taxpayers. The denial of an appeal to a tax appeal court of competent jurisdiction for one taxpayer means the denial of a court appeal for all taxpayers.

"There are probably as many different rules or methods for determining values for the purposes of taxation as there are states in the Union. In ordinary daily business transactions, buyers and sellers are able to agree upon the price in consideration of which ownership of services and property of every description is transferred. When transfers of any class of property are frequent, the prices so established are known as market prices. To establish market prices, commodities must be freely offered in lots of varying quantities, or under conditions permitting free subdivision to comply with

Digitized by Google

the varying demands of buyer or seller, and there must be competitive bids and offers from a number of buyers and sellers competent to fulfill their contracts. The elements that enter into a market price are: (1) Available supply; (2) Conditions of delivery, time and terms of payment; (3) Purpose of purchase; (4) Necessities of buyers; (5) Necessities of sellers.

Basis of Valuation

"A constitutional requirement that all property must be assessed for taxation by a uniform rule, at its value in money, limits the freedom of legislatures and narrows the judicial discretion of tax assessors to the consideration of but one basis of valuation —sales or inventory value. It is not possible to comply with this requirement unless sales price value is construed to mean the price at which the property being appraised for assessment would reasonably bring in an ordinary transaction of an unforced purchase and sale. This construction excludes from consideration the cost of the property to its owner; the cost of duplicating it in its present or in any other condition, and its earning capacity. All of these considerations are elements of sales value. It also excludes from valuation by such a rule all property for which there is no unforced buying and selling in ordinary business transactions.

"In making valuations on this basis the assessor has two guides: (1) the sales value of all property for which records are kept disclosing true sales prices; (2) his own judgment. The first guide will serve him in valuing real estate and those commodities of commerce for which he can find records of sales in market reports. The second guide makes the valuations determined by him an expression of his opinion, pure fabrications of his judgment.

"Inventory price value is practically the only basis that can be constitutionally used in states having constitutional provisions requiring the taxation of all property by a uniform rule. The rule of inventory price value is the only rule that can be applied to the valuation of all property. All property has an inventory value, but large classes of property have no established market or sales value, nor any earning capacity.

Tax Administration as a Profession

"The administration of tax laws must be established as a profession. Taxpayers should realize these facts. When they do, and take into consideration the reasonable ability of those permitted to perform the duties of assessing property for taxation, they will cease to wonder why there is injustice in taxation. They will appreciate the necessity of a thoroughly scientific professional system of tax administration, such as I have outlined, and they will know that the system of taxation cannot become scientific unless it is made professional. When the administration of tax laws is established as a profession, justice in taxation will be established."

Taxation in Canada

J. W. Harris

Said J. W. Harris, assessment commissioner of Winnipeg:

"When the six original provinces of Canada came under the confederation act of 1867, they were endowed with all sorts of powers, legislative and administrative, but with very little of the sinews of war to enable them to exercise these powers. The aggregate revenues of the six amounted to less than four million dollars a year. Forty years later, the same six had revenues amounting to less than $16,000,000. Even now they are under $20,000,000. Now, we have nine provinces in Canada, Manitoba, Saskatchewan and Alberta having been since added to the roll. These three western provinces collect among them less than $10,000,000 a year. For a great part of their revenue the provinces have to depend on the Dominion exchequer. In some cases the subsidies from Ottawa amount to more than one-half of the total revenue of the province. In no case are they less than one-fourth of the whole.

"For the year ending June, 1909, Quebec's revenue, for instance, amounted to about $6,000,000. This was made up as follows:

From Dominion subsidies	$1,813,039
From receipts: lands and forests	1,041,226
From licenses	876,553
From taxes on commercial corporations	653,341
From duties on successions	634,445
	$5,018,604

"In addition to these main sources, there was also something approaching a million, made up in small sums. One notable feature in regard to the revenue of this province is the comparatively large yield from licenses, and the great variety of trades that

Digitized by Google

require licenses. In this, Quebec is following France, from which she originally derived the greater part of her settlers. Many people are of opinion that before very long Ontario, Manitoba and British Columbia will follow suit in this.

"The revenue of Ontario amounted, for the period from January to October, 1910, to $7,477,920. One-half of the whole income of Ontario comes from the Dominion exchequer. The other half is made up as follows:

From lands, forests and mines	$2,000,000
From game and fisheries	83,000
From succession duty	685,000
From Government railway	530,000
	$3,298,000

In Ontario

"There has been for some time a strenuous movement for the introduction of the single tax in Ontario. So far this has not materialized to any considerable extent in respect of provincial assessment.

"As matters stand at present, 'all real property in this province and all income derived either within or out of this province by any person resident therein * * * shall be liable to taxation,' with certain notable exceptions, viz: property in which the crown has an interest, churches, public educational institutions, city and town halls, public roads, municipal property, etc., etc. Land occupied or used for the purpose of any business is taxed according to a graded schedule, e. g., a distiller is assessed on a sum equal to 150 per cent of the assessed value of the property, while a wholesale merchant, an insurance company, a loan company, or bank, only pays on 75 per cent of the assessed value of the property. Farmers, market-gardeners, and nurserymen are not liable to business tax. In addition to the tax imposed on business men, the province of Ontario also levies a tax on income directly, but no one is assessed on both business and income tax unless where the income is derived from a source in no way connected with the business.

In Manitoba

"The province of Manitoba being as it were in the making, it is not an easy matter to disentangle the mixing up of capital and revenue operations. The bona fide income of the province amounts to $3,376,892, more than one-third of which has to be obtained from Dominion subsidies at Ottawa. Last year's tax on land amounted to $721,185, of which $205,887 was levied in fees, and $515,298 came from provincial lands. The fiscal taxes proper are as follows:

Liquor licenses	$106,124
Automobiles	3,000
Succession duties	52,004
Insuranec act fees	26,505
Corporation tax	83,791
Railway tax	139,112
	$410,536

In Saskatchewan

"The revenue of the province of Saskatchewan for the year 1909 was nearly four million dollars, one-third of which was drawn from the Dominion treasury. The private citizen gets off very easily, but the railways are called upon to contribute liberally to the provincial exchequer, so also are the publicans and the joint stock companies. Saskatchewan, in her last legislature, gave permission for the introduction of the system exempting buildings and improvements where desired, in towns as well as in cities—villages already having this power. The working of the two systems of taxation is admirably exemplified in the city of Lloydminster, half of which is in Saskatchewan and half in Alberta. The portion of the city which is in Saskatchewan levies a tax upon buildings and improvements, while the Alberta portion taxes nothing that can move—only the land values. With the result that the business man carries on his business on the Saskatchewan side, but has his residence on the Alberta side.

"Alberta's adoption of the law excluding buildings and improvements from taxation is held by many to be accountable for her rapid growth in population. Of the 300,000 immigrants from the United States during 1910, one-third came to Alberta, mainly drawn to that province, it is claimed, by her system of taxation.

"During the year 1909 the province of Alberta had a revenue proper of about $2,400,000, of which considerably more than one-half was derived from the subsidies of the Dominion government. Alberta has hardly any direct taxes, and in this respect is diametrically opposed to British Columbia. Its taxpayers are at the present time

Digitized by Google

very lightly taxed. The local legislature seems to be offering every possible inducement to attract settlers from the United States and elsewhere.

In British Columbia

"In the province of British Columbia there are two distinct authorities or jurisdictions, which assess and collect taxes on real property, viz: the government of the province, and the municipalities. The provincial government has reserved to itself the right to assess and collect on the personal property and incomes of all persons in the province, and the taxes collected form part of the consolidated revenues of the province. It has also reserved the right to tax all real property outside the boundaries of incorporated municipalities. The municipalities have a right to assess and collect on all real property within their incorporated boundaries; the same are a part of the revenues of municipalities, and each municipality has separate and exclusive jurisdiction over such; and no returns of such are made to the provincial government.

"For purposes of provincial taxation, all real property is divided into two classes: 1, real (i. e., improved) property; 2, wild land (i. e., unimproved). When assessment is made on improved property, the owner is not asked to state the value of the land and the value of the improvements separately. The tax imposed on improved land at present is three-fifths of one per cent on the assessed value (i. e., on the actual present cash value.) Wild land is also assessed at its present cash value, and that may be anything from one dollar up. Timber and coal lands vary from $10 to $25. The wild land tax was introduced in 1873, and no serious objections have ever been raised to it. It has proved an excellent preventative against speculation in land. Indeed, at the present time the province of British Columbia is practically free from large individual holdings. Vancouver for one year has wholly exempted buildings and improvements from taxation. During the nine months from July, 1908, to March, 1909, the revenue amounted to $4,638,562, made up as follows:

Dominion subsidy	$ 520,000
Land sales, etc.	755,000
Timber leases, royalties and licenses	2,332,600
Chinese restrictions	345,000
	$3,952,600

"The balance was drawn from probate and succession duties.

In Other Provinces

"The only taxes levied by the local government of Nova Scotia are succession duties, marriage licenses, and registration fees for joint-stock companies. The rest of the provincial revenues is made up from mine royalties and Dominion subsidies. All property liable to taxation is assessed at its actual cash value.

"In New Brunswick there is no legislation providing for taxation of unimproved value of land. It received a subsidy from the Dominion government, and a further subsidy of $150,000 as indemnity for loss of duties on export lumber. The province has a grade schedule for the taxation of corporations.

"Every person resident in Prince Edward's Island is assessed at one and a half cents on the dollar upon all income, derived from investments, trade, or vocation, whether the source of such income be within or without the province; this rule, however, does not apply to any one whose income falls short of $500 annually; nor does it apply to the income derived by a farmer from a farm subject to land tax, and worked by such farmer.

"Taxation as it is operated in four of the largest Canadian cities is as follows: Montreal's principal sources of revenue run relatively as follows:

Real estate tax	55.2 per cent. of the total
Business tax	10.2 per cent. of the total
Water-rates	24.7 per cent. of the total
Licenses	6.8 per cent. of the total
Markets	3.1 per cent. of the total
	100

Montreal and Toronto

"Montreal has never levied an income tax. This city has a system of taxation known as the "business tax" based on a rate of seven and a half per cent of the annual rental value of the premises occupied for business purposes, excepting in the case of buildings in which spirituous liquors are sold, where the tax levied varies according to the assessed value of such premises; for instance, if the assessed value lies between $2,000 and $2,400, the taxation amounts to $175, the larger places paying much greater amounts. There are quite a number of special taxes.

Digitized by Google

"The realty taxes of the city of Toronto are by far the most important item in the annual revenue. Their total amounts to about $5,000,000. This does not include local improvement rates, but is derived from the general rate of 18 mills in the dollar for the year, and may be expended by the city in any way which the council may adopt. From other sources the city gets a further revenue of between two and three million. One noticeable feature in regard to license is the very moderate sum demanded from businesses that supply the necessities and ordinary comforts of life.

Winnipeg

"For the last fiscal year, the revenue of the city of Winnipeg amounted to a little under three million and a half. This was made up as follows:

From General Taxes—	
$157,608,220 at 10.80 mills	$1,702,168
Local improvement charges	726,063
Business tax	224,134

"Winnipeg has recently adopted the principle of limiting the assessment on buildings and improvements to two-thirds of their value while maintaining the assessment on land at full cash value. The taxation known as personal property assessment was discarded by Winnipeg twenty years ago, when she adopted in lieu thereof a business tax based upon the annual rental value of the premises for business purposes, the rate being now fixed at 6⅔ per cent of said rental value.

Vancouver

"In Vancouver all lands are assessed at their actual cash value, as they would be appraised in payment of a just debt from a solvent debtor. The council of each year has the power to exempt the whole or any part of the improvements from taxation. From 1895 to 1905, improvements were exempt up to 50 per cent of their value, and from 1906 to 1909, 75 per cent of their value was exempt, while for 1910 and 1911, buildings and improvements are entirely exempt from taxation. In the western provinces there are not a few thoughtful people who have come to the conclusion that it is not wise to take all the city charters of a province and out of them construct a composite charter to be made applicable to all cities alike. There is rather a tendency towards a general incorporation act, laying down general principles affecting all, but giving the widest latitude to each, as to the carrying out in detail of these general principles."

Municipal Taxation in Illinois

John A. Fairlie

Presenting the topic, "Municipal Taxation in Illinois," Prof. John A. Fairlie, of the University of Illinois, said: "Municipal taxes can be clearly understood only in relation to the state taxes. On the other hand, the municipal taxes form by far the greater part of the total of state and local taxes. Excluding both state and county taxes, the city, school and other local taxes in Illinois constitute nearly four-fifths (over 77 per cent) of the total of state and local taxation on property; and if county taxes be included as municipal, the municipal taxes form more than 90 per cent of the total state and local taxes. Existing methods are still based on the ideas which originated in the days of pioneer settlement.

"The principal source of public revenue in Illinois, alike for state and for all municipal purposes, is the general property tax, prescribed by the state constitution. Property is assessed for taxation under a law which now openly provides for assessment at a fraction of its full value. Assessments are determined mainly by elective township and county offices, with practically no administrative supervision by state officials. Railroad property and the capital stock of some corporations are assessed, both for state and local taxes, by a cumbersome state board of equalization, with inadequate powers. Taxes are imposed by a confusing number of competing authorities; and a complicated statute intended to limit the total tax levy is ignored in most counties. In addition to the general property tax, the state derives a considerable part of its revenue from a percentage of gross earnings from the Illinois Central railroad, and from some special taxes and fees.

In Early Days Little Undervaluation

"Before 1850 the total amount of taxes in Illinois was insignificant, and the tax rates so low that there appears to have been little temptation for the undervaluation of property. But during the next ten years the state taxes more than trebled, and local taxes

Digitized by Google

also increased. In 1860 the total of state and local taxes was $6,121,166, of which about two-fifths was for state taxes and three-fifths for local taxes. The average tax rate for this year was $1.66 on the $100 of assessed value; but the estimates of the United States census of the value of property indicate that property was now assessed for less than half of its true value, and that the total tax levies were equal to an average rate of 7/10 per cent on the estimated true value.

"Another decade brought even more striking developments. The aggregate of state and local taxation increased from $6,121,166 in 1860 to $21,825,000 in 1870. Part of this was a further increase in state taxes; but much the larger part of the increase after 1860 was in local taxes, which had multiplied five times (from $3,600,000 in 1860 to $18,200,000 in 1870). The nominal average tax rate had risen to $4.55 on the $100 of assessed valuation; but assessments appear now to have averaged less than a fourth of the true value, and the real average tax rate was about 1 per cent on the estimated true value of property. This was an increase of 50 per cent in the actual burden of taxation in ten years. The state constitution of 1870 authorized some additioal special taxes; but renewed the requirement for the general property tax. A general revision of the revenue law in 1872 further elaborated the rules for listing and assessing property, giving special attention to the listing of moneys, credits, stocks and bonds, as personal property. The decentralized system of local assessment for most property was continued; but the assessment of railroad property and the capital stock of Illinois corporations was centralized in the hands of the state board of equalization, which had been established in 1867 and was now reorganized.

"At the outset the new law was energetically administered by both local and state officials. Local assessments were increased two and a half times, and railroad property more than five fold. The total equalized valuation for 1873 was nearly three times that for 1872. The average total tax rate was reduced about one-third, and the tax revenue for state and local purposes was increased about two million dollars.

"The reaction began almost at once. The assessment of 1874 showed a marked decline in valuations, and by 1880 the total equalized valuation was little more than half that for 1873, and about the same proportion (one-fourth) of the census estimates of the true value of property as in 1870. The average total tax rate was about double that for 1873, but the total tax revenue was a considerably smaller proportion of the estimated true value of property than in 1870.

Values Increasing, Valuation Stationary

"For nearly twenty years the administration of the revenue laws steadily deteriorated. In the face of rapidly increasing values, the total assessed valuation of property in Illinois remained practically stationary, and on the average even tangible property came to be assessed at not more than one-eighth of its true value. Tax rates steadily increased, and with the continued rise in the amount of taxes levied (especially from 1890 on) bore heavily on those taxpayers whose property was assessed relatively near the true value. At the same time the ratio between the total tax revenue and the aggregate true value of all property was not gaining, but in 1890 and 1900 was about 30 per cent less than in 1870. In 1885 a revenue commission had been appointed, which drafted a bill for new revenue law, proposing a number of important changes, but no action was taken to carry out these recommendations.

"By 1895 the total of state and local taxes levied in Illinois had risen to $47,546,879, an increase of 60 per cent in ten years. Most of this increase was in local taxes, which since 1890 had formed 90 per cent of the total taxes levied on general property. The added burden was even greater on many taxpayers on account of the gross irregularities which inevitably developed in connection with the general practice of undervaluations. These conditions have led to some further minor amendments to the revenue law, which have, however, at best tended to palliate rather than to remedy the fundamental difficulties.

Seeking More Equitable Assessment

"An act of 1898 attempted to secure a more adequate and equitable assessment by requiring schedules of personal property, by providing heavy penalties for failure tc carry out the law, and by providing that the taxable value should be one-fifth of the 'full value' of property. In Cook county a county board of assessors was established and the town assessors in Chicago were abolished. County boards of review were reorganized and given larger powers. In 1909 it was provided that the taxable value should be increased to one-third of the full value. By the Juul law of 1901 an attempt has been made to limit the aggregate tax rate, by fixing a minimum total rate, and providing for scaling down the rates of the various authorities when this limit is exceeded.

"These recent amendments have brought about some improvement in tax administration. Assessed valuations have been increased, and the nominal tax rates reduced.

Digitized by Google

But the advance toward an equitable apportionment of tax burdens has been slight; and the defects of the present tax laws and system of administration have become more clearly evident. Real property forms about three-fourths of the total assessed valuation, and is assessed with more approach to uniformity than other property. Let it is probable that on the average real estate is not assessed at more than a fourth of the true value, instead of the one-third called for by law—a situation which permits large inequalities without giving taxpayers whose property is relatively over-assessed ground for showing that their assessment is more than that provided by the law.

Personal Property Assessment a Farce

"The assessment of personal property shows much greater inequalities, and has not unfitly been called a farce. Even on the items of tangible property, where the schedules are filled out, the returns show the most whimsical variations in average values for the same items in different districts. In the cities personal property schedules appear to be seldom filed, and personalty assessments are largely guesses on the part of the local assessors. Manufacturers' tools, implements and machinery for the whole state of Illinois were assessed in 1909 for only $5,992,675, representing a supposed full value of $17,978,025. The reports of the census bureau in 1904 showed the value of manufacturers' plants and machinery at $227,543,320, or more than twelve times the 'full value' of the assessors. Household and office furniture was assessed in 1909 at $17,098,425, or little more than $3 per capita.

"Most glaring of all are the deficiencies in the assessment of intangible personal property, such as moneys and credits, mortgages, bonds and stocks. In rural counties mortgages appear to be partially assessed, in some counties perhaps one-fourth as completely as real estate. But in the cities, and especially in Chicago, the assessed value of all intangible personalty is obviously a much smaller part of the actual holdings. The total assessment for intangible property (except bank shares) in 1909 was about $90,000,000—less than 5 per cent of the total valuation of the state. In Cook county, where the total assessment is about 40 per cent of that of the state, the assessment for intangible property (other than bank shares) was only $15,000,000—one-sixth of that of the state and less than 2½ per cent of the total assessment for Cook county.

State Board of Equalization

"Moreover, the work of the state board of equalization also shows similar deficiencies. The board has in fact abandoned the attempt to equalize the local valuations, so as to apportion the state tax more equitably between counties. Its centralized assessment of railroad property is more effective than the older system of local assessment for such property; but the valuation of railroad property in recent years has not advanced as much as that of property locally assessed, nor in proportion to the increase of railroad earnings. The percentage of taxes to earnings has declined from 13 per cent of net earnings in 1890 to 11 per cent in 1908, and from 4.75 per cent of gross earnings in 1890 to about 3.5 per cent in 1908. As between the various railroads, the ratio of taxes to earnings shows wide variations, ranging from 2 to 7 per cent of gross earnings.

"The method of apportioning the railroad assessment to local districts assigns to the cities, and especially to Chicago, a much smaller part of the assessment than should properly be assigned. The valuation for main line and right of way is apportioned on the basis of main line mileage—a mile of track in the open prairie being assigned the same value as a mile in the heart of Chicago. This method deprives the cities of a large amount of taxable value.

"The state board's assessment of the capital stock of Illinois corporations has never been of much importance. As the result of a suit begun by the Teachers' Federation of Chicago, public utility corporations, especially those in Chicago, are now assessed to some degree on their franchises; and there are nominal assessments on a considerable number of other corporations. But the aggregate assessment for capital stock in 1910 was only $30,265,148, representing a supposed full value of $90,795,444, while in the smaller state of Massachusetts the assessment of the same character on corporations amounted in 1909 to $427,643,330—more than five times that in Illinois.

"In addition to the serious defects in the assessment of property for taxation, there are further difficulties caused by the numerous tax-levying authorities. The sum of the separate rates for the various authorities in Chicago aggregate over 9 per cent, and in 1895 and 1897 the average tax rate in Cook county (on the low assessments then prevailing) was more than 9 per cent.

Legislation to Limit Tax Rate

"With the measures to increase assessed valuations, there has come legislation to limit the aggregate tax rate. The ordinary maximum was fixed in 1901 at 5 per cent, on

Digitized by Google

one-fifth valuation, and this was changed in 1909 to 3 per cent on the one-third valuation. The purpose was to secure a limit of 1 per cent on the full value. But, as has been noted, the assessed valuations are considerably below the fraction provided by law, and this ordinary maximum, if effective, would limit the total tax rate to not more than three-quarters of 1 per cent on the true value of property. Provision has been made, however, for certain modifications of this maximum; and the law is so complicated that no one but some of the Cook county assessing officers and the tax agents of the railroad companies understand it.

"In Cook county the complex provisions for scaling down the tax rates of the various taxing authorities are followed, with the result that in 1909 the average tax rate in that county was 4.88 per cent, although the ordinary maximum is 3 per cent. In most of the other counties of the state little attention is paid to this maximum tax limit by the tax officials; but after the taxes are levied the railroad tax agents compare these with the Juul law, and secure a reduction in the railroad taxes to the total rate authorized by law.

Bad All Around

"The net result of the defective assessment of property and the complicated system of taxation is an apparently high rate of taxation, an inequitable distribution of the burden of taxation, and at the same time a lack of public revenue, both for state and local purposes. The total amount of property taxes levied has continued to mount rapidly. In 1909 the aggregate of state and local taxes in Illinois was $83,269,865—more than double that fifteen years before. At the same time the per capita state revenue in Illinois is less than one-half that in New York, Massachusetts, Wisconsin or Minnesota; the per capita revenues of all public authorities in Chicago are less than those in any other of the five largest cities in the United States; and the per capita revenues of each of the cities in Illinois of over 25,000 population are distinctly less than the average for cities in the same class throughout the United States.

Illinois' Special Tax Commission

"A special tax commission, appointed by Governor Deneen in 1910, reported early in the present year on the defects of the present system of taxation, and recommended important changes. With reference to the pronounced failure of the present method of taxing personal property, the commission urged the need of radical changes in the system of taxation for such property, and submitted a proposed constitutional amendment to give the general assembly a free hand in the taxation of personal property." Recommendations were also made for important changes in tax administration, including the substitution of county assessors in place of town assessors in counties under township organization, and the establishment of a small permanent tax commission, to take the place of the badly organized and ineffective state board of equalization, and with greatly increased powers of supervision over the local administration of the assessment of property.

"These recommendations are in harmony with recent changes in other states, and with the views of the best students of taxation; and, while not adopted at the last session of the general assembly, they have been favorably received by most of those who have investigated taxation conditions in this state. They present a tangible program of tax reform, which is certainly much needed.

"In its recommendations the special tax commission confined itself to proposing changes in the general revenue laws, and did not consider alterations in other laws which might bring about improvements in the taxation system. But the writer of this paper begs to add that another step needed for dealing with the present situation is to simplify the machinery for levying taxes. Certainly some of the confusing chaos of local tax-levying authorities should be consolidated; and there should also be provided some authority in each county with power to regulate and adjust the total tax rate 'in the light of reason' and after an examination of local conditions, in place of the complicated and arbitrary provisions of the present tax limit law."

Digitized by Google

Public Schools

Teaching the Child City Building

Walter D. Moody

At the conference on "Public Schools," Frank I. Bennett, of the Chicago Board of Education presiding, Walter D. Moody, managing director of the Chicago City Plan commission, said on "Citizen Making and City Building: "The keen student of political economy, reviewing in detail the consecutive steps of progress toward municipal reform, sees a bright future. Why? Because each year, thanks to an education system directed toward right development of the public conscience, and to the faithful efforts of a legion of educators, ideals of citizenship are being raised higher and higher. Thirty years ago in America reform meant a newspaper expose of corruption, a few months of apparent virtue, and a speedy descent into corruption as deep as before. Twenty years ago, reform meant not only exposure, but prosecution of the corrupt. Ten years ago, reform began to mean prevention, and denial of public preferment to the corrupt and the unfit. Today, reform means special education of man for the duties of public office; not only prevention of evil, but scientific development of the good in government. We have already entered the era of scientific citizen making, and with that era, we have entered, too, upon the greatest movement of modern times—the scientific building of cities. Build the citizen right and he will make the city right. Citizen building well planned, means the building by citizens of well planned cities. The two go in hand.

The Cities Control

"Our cities today control our country. Recognizing this, what are we to do? We ought to begin at once to build up in our schools an educated citizenship. American cities today, stand at the threshold of the science of city building, awaiting a citizenship to seize upon opportunity that will give the nation the mastery of the world's commerce, art and science. The time for molding the destinies of American cities has arrived. Convenience, attractive surroundings, order, healthful conditions all make for good citizenship, but good citizenship must be had before any city may hope to successfully promote and realize such a plan.

"When and where should we begin this training? In our public schools. Every growing American city of fifty thousand and up, should adopt a city plan. A plan to direct the future growth of the city in an orderly, systematic way. These plans should be studied in the public schools. A regular course of instruction should be installed embracing citizen making and city planning. Our public schools should become manufacturing establishments where citizens are made—real citizens of the most approved pattern and workmanship with an intelligent appreciation and knowledge of the needs and possibilities of the city in which they live.

Teach a City's Plan to Its Children

"What more befitting arena could possibly be had for the scene of action in city planning and city building, than our public schools? Give the school children of Chicago five years in which to study the plan of Chicago—the most splendidly comprehensive and complete plan ever created for any city—five years, I say, and the plan, a work of fifty years, will become a realization. In five years the school children of Chicago by study of the Chicago plan, will educate their elders and do more to bring to pass the great constructive genius of Burnham and the unfaltering devotion to public service of Wacker than will a hundred plan commissions or a thousand legislative bodies.

"Love of country, the feeling which is inherent in every normal boy and girl, is being given a companion sentiment—devotion and passionate interest in the safety and welfare of our cities. This new feeling of community patriotism, an outgrowth of modern conditions of life, takes the form generally of a high and controlling pride in one's native city, or in the city in which one abides and has adopted as his home. The cities will set the policies for the nation. Impulses for good order, cleanliness, influence and economy in government, must be the product of education of the children of our cities if our country is to continue its course in history and maintain its place in cililization. Observers of this new and growing feeling of civic patriotism are realizing that it finds expression among the people, and particularly among the youth of the cities, as

Digitized by Google

freely as does that based on the broader foundation, the love of native land. In some ways this devotional impulse comes more quickly and freely, even than that pertaining to our national life. While, of course, it never is expressed with the height of emotion which meets an appeal to the old and deeper patriotism, it is usually much easier to arouse. It is becoming a recognized fact that the power, growth and advancement of a city is limited only by the measure of the united civic interest of its people. Conditions which make for good health, good order and good citizenship must be made clear to our children.

"Municipal Patriotism"

"We have reached the time now when the citizen must do his duty and plan for the welfare of coming generations. It is necessary that the people realize, and that the youth be taught that the really great work of the world today is that which foresees and builds for the future. Our children must be taught that the time is past when community life is to be left to chance or caprice. The people are fast beginning to realize that a progressive city is the one that leads in building according to a carefully drawn plan. The strong and uncontrollable tendency toward community improvement which is spreading and taking fast hold on cities throughout the entire country makes the municipality today a far more important and controlling factor in the welfare of the nation than ever before in the history of our country. The welfare of the nation depends upon municipality excellence—the community all right, the nation will be all right.

"The idea of instituting a course in our public schools in what might be termed 'municipal patriotism,' is new and therefore somewhat novel in its appeal. Once taken up by a single school, however, it will grow and spread until it embraces every city in the country, and in time will come to be regarded in the education of the young as of prime importance in the curriculum of our grammar schools. In the study of city planning it is of prime importance that we understand and appreciate the full benefits involved in a realization of a growing city directed in its growth according to a scientific plan. There is in our cities, wealth enough and to spare among the people to carry out adequate city plans step by step without being burdensome to any. Through it all, however, the students of civic science can see clearly a growing city hampered in its broad development on the one hand by personal self-interest and on the other by sectional selfishness and prejudice, refusing to realize the city's needs as a whole and blind to the fact that a benefit to one part is a benefit to the whole city.

"The opportunity to weave at the looms of civilization in city planning presents itself to the instructors of our schools. Let them organize the mighty forces at hand and prepare the students' minds to occupy the frontier of human thought in progress and produce a citizenship in American cities for the conquest of the world's commerce, science and art."

In the Youth of a Great City

Maurice J. Dorney

The Rev. Father Maurice J. Dorney, of Chicago, said: "When I was a small boy —and I was to talk about the evolution of Chicago schools, not city schools generally— there was a great distinction. I was enrolled in the first census I think that was taken of the public school children of Chicago in 1855. There were 3,000 and I was one of them, so that I can go back pretty well into the history of the schools of Chicago. In those days there were many thoughts that do not exist now. In those days the difference of creed meant a whole lot in all the departments of life. Our people of course, of all classes, have come from races that were discordant, but by the schools of the cities, by our continued association, we have learned to appreciate the good things in each other, so that today in every respect the schools in the city of Chicago that are called Catholic are as much public schools as the schools that are simply and purely denominated so, and we recognize—my teachers and all of the teachers of Chicago recognize the board of education, we receive all their courses, we follow them, we go to their institutes, in fact, I think the man who is the best known in the city of Chicago in our schools is Mr. John D. Shoop, assistant superintendent of schools, better known than the name of mostly any of the people directly connected with our own schools. He stands high with us, he is one man to whom we look for explanation in all matters that are of a studious nature in connection with the elaboration of our own schools. So consider that, Mr. Bennett, you are vice-president of a board of education that has not something over 300,000 children enrolled, but a board of education that has more than 425,000 children enrolled in it, including all our schools as well as the others. I have said to you I was enrolled in the census of 1855 here in the city of Chicago. The first school in the city of Chicago stood on the site where the Tribune now stands. I suppose the Tribune claims, and may be with justice, that it is a development of that first thought in education reaching today to the highest possible consummation. I do not know whether the Tribune would be that modest or not, but I presume from other

Digitized by Google

things that I know that it is. Across the road stood the second school that we had, the old brick school house, called the Dearborn school.

The Unruly Boy

"Chicago's history is not the history of one very long life, and yet it has shown its material development in the school question in a most extraordinary way. It has also shown that same character of development in the lines of its education. The simplest things were the things that we were taught in those days, reading, writing, arithmetic and spelling. I think we learned them just as well as they do today, but our horizon was shortened by these, and no glimpse into anything greater or more wonderful was shown to us. Maybe some of us older people are not sorry for that kind of an education, which limited us to the practical things, and forced us to grasp after the other things ourselves. Some of us even imagine that where there is ambition there will be a will strong enough to achieve, even if all the wonderful advantages of today are not given. In the early days we were confined, as I said, but gradually the systems grew until they have embraced lines of knowledge that are now within the public schools, making it the equal even of the university itself—our high school children, our normal school children, the various trade schools that are connected with them, make it an ideal system, reaching out little by little into all the arts that man may have.

"There have been a lot of things remedied. I remember one thing in the early days, the evolution of corporal punishment. It used to amuse me to think about that. In my early days when in school it was not abolished, but it had one fair thing about it. The teacher got licked sometimes as well as the scholars. The system has grown from that unruliness into a great big system, where order reigns everywhere, and I am just a trifle afraid a little too much order. The order that excludes, for instance, the unruly boy from our school who needs the school more than the boy who is actually a very good boy, is one of the things that I think is order run to seed, you know. We have in the city of Chicago today many thousand boys running the streets who ought to be in school, who are dismissed from school for insufficient cause. They are capable of being governed in some way, and we ought to find a way, and the way certainly is not to exclude them from all training. I am not criticizing any one school. I have 1,600 children in my own school, and I find it difficult not to follow that. It is easier to exclude a boy who causes you trouble, especially when you have got so many hundred you do not know what to do with, than to take that special case and work it up into the good citizenship which is absolutely possible in mostly all cases. It requires time, it requires trouble, it requires work, but it can be done. There is no bad boy made by nature, at least, there are but few of them that cannot be brought back and created into good citizenship with proper work." (Applause.)

Educational Progress

Carroll G. Pearse

Said Superintendent Carroll G. Pearse of the Milwaukee public schools, and president of the National Educational Association: "I take it as especially fortunate that this international municipal organization has invited a representative of the National Education association to participate in your deliberations. Only a short time ago the National Conservation congress, which met in Kansas City, had the thoughtfulness to invite the National Education association to send delegates and participate in the deliberations of their convention. I take this to portend a newer and broader National Education association, a National Education association that is interested not only in the scholastic side of education, but in the broader social and economic problems which confront us, demanding solution. And as the work of the National Education association goes on, I hope it may be characterized by a wise interest in the people and their welfare, and all the things which interest the people, for whom the schools exist.

Tendency Toward Scientific Methods

"It seems to me that if any one thing characterizes the educational tendency of the day, it is a tendency to use scientific methods in educational study and practice. I was in conversation today with some of the men who work in your great university. They have been engaged in certain educational inquiry to find out the progress made by students who go from the common schools into the secondary schools and colleges; to see how the work done by boys and girls in the high school compared with the work which those same boys and girls did in the elementary schools, and in the same way, to ascertain how nearly the work done in colleges comports with the work which they did in the secondary schools. This is only a single instance of the scientific methods which are now being used in the study of education. Studies are

Digitized by Google

being made to find out why it is that boys and girls fail to pass and be promoted from year to year, or from semester to semester; why it is that boys and girls leave school before they ought; we are trying to find out whether pupils fail to do their work because we gave them too much to do; whether they failed because their studies were not of the right kind—a kind which interests them; whether they fail because they are not physically able to do the work, or because they come to school hungry; whether their home conditions are not the proper kind, the sleep which they obtain is not sufficient; whether they have physical defects which prevent them from using their minds in the best way. We study these things from the scientific standpoint; we are attempting to find out the causes of the phenomena which we see week by week in our school system, and to learn why it is we find difficulty or fail in our endeavor, and what it is that we should do to overcome the difficulties which we encounter.

Childhood as Greatest Natural Resource

"We have come to consider childhood as a great natural resource, the greatest natural resources of the nation. We realize that we must study carefully the physical health of our children; note the influences which surround them in their homes, and see what influences surround them in their school rooms. We must ascertain, if they seem to be lacking in that vitality and virility, which marked the boys and girls of the former generation; what are the causes for this failure of vitality and of capacity to do work. We study the ventilation of our school rooms; we study the quality of air that is supplied to them, the methods of heating, the plans for removing dust and other harmful substances; we study the light that comes in to enable boys and girls to read their books.

"We realize more and more as we study these problems that conditions are unfavorable to the best physical development of people who live in towns; that the conditions which surround them are not those which conduce to the greatest strength and vitality. A young man comes in from the country virile with power and the vigor acquired through years of labor under wholesome conditions. As he and his family live one generation, two generations, three generations under the conditions that surround us in towns, the virility diminishes. We must remove from the path of these town-bred boys and girls of ours the things that hold them back; we must study those things that strengthen them; and so far as we can find out and practice those things which tend to build up again that vitality which under town conditions we are so likely to lose.

"We are studying in the problem of retardation. We are trying to learn why these boys and girls are dropping out of their classes; we also have come to realize that, in the decades gone by, we have had a great deal of what we may call 'educational by-product.' And we find that we must establish different kinds of instruction for different classes of children. Thus the school system is coming year by year to realize more and more its responsibility to all the children of the community. As we continue this process of differentiation, our skill in classification will increase and our skill in meeting the needs of all the special classes will become greater.

Restoring the Fully Rounded Circle

"Another tendency of the kind which I think I see is the disposition to restore the fully rounded circle of education. It is that, I think, to which Father Dorney referred in his opening. In his opinion, the things of common value and use, the simpler elementary lines of study, should be emphasized. In the elder days this was done not by the schools but by the home. Here, and in their sports, the boys and girls learned and were required to do things that very few boys and girls in town now have an opportunity to do. They skated in winter; they slid down hill; they climbed trees; they built dams; they enjoyed themselves in all the ways that girls and boys, under the more advantageous surroundings of a simpler society, were able to do. These helped to build strong, vigorous bodies; this play and this work trained certain muscles and developed certain nerves which are built up by the exercise of these muscles. Certain areas of the brain also are supposed to be developed by this exercise. The opportunities for work served also to develop certain elements of character, certain abilities in judgment, certain executive qualities which our town life today, with its lounging and amusements, its books and its crowds, does little to produce.

Supplying Lost Facilities

"As the situation in the home has changed, and boys and girls have lost the opportunity for the useful employment of their hands; as the conditions of our streets, and of our door-yards have changed, so that the boys and girls have less and less oppor-

Digitized by Google

tunity for exercise and for the development of strong bodies, we must bring back into the schools this rounded circle of education. So we put into the school physical training, systematic training of the body, such as is needed to overcome our living conditions and restore the general health. We are now putting into the schools hand work, which the pupils cannot get elsewhere. We are finding that we must care not only for those boys and girls who are blind, and those who are deaf and those who are subnormal intellectually, that provision must be made for those who have less opportunity than children once had in the home for the development of the useful arts and abilities of life—we must also care for those who lack vitality; those who through lack of food have become anæmic, and those who are predisposed to be victims of tuberculosis. These we must all care for, as some cities in their schools are already caring for them.

Vocational Work

"We are cultivating another quality by the employments which we are putting into the schools. I was interested in what Father Dorney said as to the importance of developing a motive—a desire to do something, the quality which he called ambition in the minds of these boys and girls. It is important for them to have the opportunity of acting on their own initiative, developing some originality and working out some of the things they feel and think. We do not always think of the value in these newer things that are done in school, drawing with the pencil or painting with water colors, as a means of bringing out some of the child's ideas—giving him an opportunity to fashion things with the fingers, to make baskets or make plates, to make other things that can be made in the schools, or in the school-shops, where these pupils have an opportunity to work; they can thus express their own originality and initiative in things selected by themselves. As our social and industrial conditions have changed, decade by decade, there has been less and less opportunity for boys and girls to acquire the useful arts in the old-fashioned way; hence nowadays the school has come to a realization of the necessity for giving to the boys and girls some opportunity to acquire in school vocations by which they may later maintain themselves. Within the past few years the National Education association has recognized, in its programs, very frankly, that we must provide in some way for the teaching of these boys and girls something of vocations. The commercial courses in the high schools and the high schools of commerce established in many cities recognize this unblushingly. further vocationalizing that which has been done by some of the manual training schools, and by the domestic sewing department in our high schools; it is now done by frankly avowed trade schools whose purpose it is to give certain handicrafts. The establishment of trade schools is becoming more and more common, as the necessity for them is more and more clearly shown.

Helping the Boy and Girl to a Choice

"And we must go further. We must, as a part of our educational system, instruct these boys and girls, concerning the different employments which are carried on among men, and advise them as to which of these employments are best fitted for the different individuals; and then having helped them to reach a decision, we shall, I take it, in some way, help them to find a proper place to begin the work they have chosen. We must not only help through providing the chance for some vocational education, we must recognize the necessity for teaching these boys and girls which are the more desirable employments for them, and help them to find opportunities to enter upon those employments when the vocation has been decided upon; and for thousands of boys and girls who leave school before they have acquired enough education to make good workmen and intelligent citizens we must have continuation schools. Furthermore we must recognize changed social conditions and provide opportunities for social relaxation and neighborhood intercourse, for knowing each other and discussing matters that are of importance to them, and we must take it as a part of our educational duties to recognize this need for relaxation, for enjoyment, for amusement; and as a part of our educational duty we must everywhere provide these facilities in the school house and on the school grounds, as Chicago is doing in its schools and in your magnificent system of playgrounds."

Digitized by Google

Paving

Chicago's Paving History

John B. Hittell

Said John B. Hittell, chief engineer of streets, Chicago, presiding in the conference on "Paving": "In the past forty years, seventy-five million dollars have been expended for 2,458 miles of streets and added pavements, of which 821 miles were renewals. At present, there is a total of 1,730 miles improved, and 2,625 miles unimproved.

"In the ten years ending with 1910, 890 miles of improvements have been made, at a cost of over twenty-seven million dollars, and in the present year the officials have contracted for five million dollars worth of improvements, being for over two and one-quarter million yards of pavement, which in lineal excess is over 140 miles, or one and two-thirds times the distance between Chicago and Milwaukee.

"To accomplish this, three-quarters of a mile of pavement is being completed each day, the cost of which, by illustration, is equivalent to the cost of a three-story, stone front, modern flat building, covering the usual city lot. And yet, with this enormous amount of work being done, and notwithstanding the fact that one-half of the present pavements were laid within the last ten years, the average yearly net increase during that period was about forty-one miles. At this rate of progress it will take sixty-four years to pave the city.

Paving Material

"In 1874 came the cedar block pavement, which gradually replaced the Nicholson with its different varieties. For thirty years this was the popular pavement, during which period there was at one time 770 miles in existence. It served a very useful purpose, being inexpensive and rapidly constructed. The last was laid in 1904, and 350 miles remain today, all of which is in very bad condition. Asphalt was first laid in 1882, and is the popular pavement of the day. Sixty per cent of all pavements laid today are of asphalt. The mileage is 531.

"Vitrified brick was first laid in 1891, since when 147 miles have been laid. It is used almost to the exclusion of all other pavements for alleys. Concrete blocks succeeded limestone, cobblestone and sandstone pavements as a matter of choice, and there has been great improvement in the character of the foundation, the manner of dressing the blocks, and the manner of laying. The dimensions have increased. Ninety-five miles of this class of paving have been laid. Creosote blocks were first laid in 1903, and that has become a very popular form of pavement. The yardage contracted for this year equals the total amount previously laid, namely, 15½ miles.

"Under the general ordinance of the city of Chicago the width of roadways is approximately 60 per cent of the width of the street. There has been a tendency of the board of local improvements to make the roadways about 50 per cent of the width of the streets, and this saving is of course enormous. However, we find the greatest objection to narrowing the roadway in the streets where the poorer sections of the city are, whether there is a misconception among the property owners that in narrowing the present roadway takes from them a part of the street, I do not know, but it requires every bit of energy that the board has to decrease the width of the roadway."

Phases of the Paving Problem

Prof. Baker

Said Professor Baker, of the University of Illinois:

"According to a recent publication of the Department of Commerce and Labor, the value in 1907 of the pavements in cities having a population of 30,000 or over was $380,000,000, exclusive of the cost of curb, gutters, sidewalks and other such improvements, the cost per capita of population averaging $16.35. Now, computing the cost of pavements in cities having a population of 8,000, and adding this result to the one already secured, we get as a total cost of pavements in cities having a population of 8,000 or over as $478,000,000, exclusive again of the cost of curbs, gutters, and other highway improvements—to use the terms of the census report. If the cost of curbs, gutters and such other highway improvements were included, the total cost of

Digitized by Google

pavement in cities of 8,000 or more population would be more than $500,000,000. Therefore, measured by the money invested, street pavements are probably the most important of any single class of engineering construction except steam railroads.

"Further, the annual expenditure for pavements in cities of 30,000 or more is $1.91 per capita, being $2.16 in the largest cities, and $1.52 in the smaller cities. Then by an easy proportion, the total amount of the annual expenditure for pavements in cities of 8,000 or more is $35,000,000; in other words, the present cost of pavements in cities of 8,000 or more is over $500,000,000, and it is increasing at the rate of $35,000,000 per annum. Which merely as a financial matter, street pavements deserve the most careful attention and systematic study.

"Good pavements lessen cost of transportation, promote efficient service by fire apparatus, establish permanent grades, give uniformity of service, and therefore beauty to streets, promote cleanliness, promote recreative and social movement, and as a measure of all these is increased value in property. Now, first, what is the best method of selecting the form of pavement adapted to a particular situation; and, second, what is the proper method of constructing and maintaining such pavement after it is selected?

The Haphazard Paving Policy

"Frequently the essential features of pavements are liable to be determined by the idiosyncracies of one or more property holders, or by the personal interests of the promoter, in favor of some particular form of pavement, without much or any attention to the interest of any one of the principles involved. Seldom is any attempt made to determine the form of pavement best adapted to the street as a whole, or any particular class of street. No one kind of pavement is equally well suited to all cities, or even to all streets in any given city. Few if any cities have taken a census of the travel on their streets, and yet such a record would be of great value in determining the best pavement to be used. For the lack of such statistics many cities have wasted large sums by injudicious selection of the kind of pavement to be laid, and have repeated the mistakes of other cities.

"As an illustration of the waste due to a failure to adopt a form of construction best suited to local conditions, a quotation may be made from a conservative report published a few months ago by a citizens' association concerning pavements, in one of the largest cities in this country. In this particular city it is the custom in laying asphalt pavements to use the same thickness of foundation and of the asphalt wearing coat on residence streets as on business streets, regardless of whether they are heavy traffic streets, whereas on the light traffic and residence streets both the foundation and the asphalt wearing coat may be considerably thinner than upon the heavy traffic business streets. This report estimates that this city, in the asphalt pavements it laid in 1910, could have saved something like $200,000, or 19 per cent of the total cost, by using a thinner foundation and a thinner asphalt coat. A somewhat similar saving could have been made in the wood block pavement, the total amount thus virtually wasted last year in this city, in this asphalt and wood block pavement, was $226,000.

Width of Pavements

"A word about the width of pavements. Money is often virtually wasted by making the width of pavement greater than is necessary, particularly on purely residence streets, and on business streets, in small cities. It is wise to make the streets of residence districts a liberal width for sanitary and esthetic reasons, and also because the future of the street cannot be successfully foreseen. The residence street may become a business street, or the unfrequented street a thoroughfare. Except for the cost, the wider the pavement the better; but length is more valuable than width. Excessive width is a heap of expense; and it delays the approval of some people, hence one help towards securing pavements is to make the pavement only wide enough to accommodate the traffic. Not infrequently the pavement of suburban residence streets are needlessly wide. Narrow pavements not only cost less to construct, but also cost less to clean and less to sprinkle, and while the cost of maintenance depends chiefly upon the amount of travel, it is, of course, dependent upon the width.

"The American people are patient and long-suffering beyond compare, in that they permit public service corporations to dig into their streets at will, and repair them indifferently. A report made to the city of Chicago not very long ago stated that the public service corporations in digging into the pavements of this city destroyed $1,300 of pavements each day, and that each year they tore up enough pavement to pave a street of the usual width from the city hall down below Grand Crossing, a distance, I believe, of about nine miles. And yet we, or rather you, or else they of Chicago, sit idly by.

Digitized by Google

Importance of Inspection

"Durability and smoothness in a pavement depends greatly upon the efficiency of inspection during construction. If the inspector does not know the character of workmanship or material required, or does not care, neither the contractor nor his men are likely to be very particular in these matters. Not unlikely, in many cases, a contractor will do better work without inspection than under an ignorant or indifferent inspector. Many otherwise intelligent men seem to think that anyone can inspect the construction of a pavement, and until public opinion demands more efficient inspection, it is useless to expect a much better pavement than is usual at present.

"One of the most glaring and the most serious defects in pavement is that due to improper back filling of trenches in the street. It is often held that if the trench is back-filled a year or more before the pavement is laid, the trench will not settle, but this is certainly not generally true, and perhaps not usually true, and certainly is many times untrue. The condition of the back filling of all trenches should be carefully tested before any pavement is laid. Another serious defect due to carelessness and inexcusable neglect is the leaving of loose pieces of stone upon the surface of the concrete foundation of a pavement. The defects and failures in the general methods of securing pavements are due chiefly to the imperfections in our form of municipal government, and largely to the indifference of the intelligent and honest citizenship in municipal affairs."

Said Chairman Hittell: "Professor Baker spoke of the enormous number of openings made in the pavements of the city of Chicago. It has been my fortune in the twenty-four years that I have served the city of Chicago, to have that opening question solved at least six times. Every commissioner of public works that came in called a meeting, during which meeting it was decided that no permits would be issued, and the next day the mill started in to run in the usual way. It is never going to be settled until the public utilities are placed in galleries. The great problem in paving is going to be to get a pavement that can be easily and properly repaired."

Street Repairs

George W. Craig

Discussing street repairs, George W. Craig, city engineer, Omaha, said: "After the street has been torn up, how shall we repair it and who shall do it? Trusting entirely to the plumber or to the corporation making the cut to repair it, is a serious matter. The first and foremost thing to be done, of course, is the proper tamping of the ditch or whatever opening there has been made in the street. The next thing to see to is that the foundation is properly laid, and that the surface be put back in a proper way. Who among us would think of requiring a street car conductor, or perhaps a deck hand, to repair the mosaic in one of our great hotels here? Who would think that it would be proper to hire a tailor or a bookkeeper to repair a concrete wall? In each instance you would have some one make those repairs that understood how to do it. But how often is that sort of thing done in municipal affairs? Show me a city anywhere in the country where there are sufficient funds provided for the repairs! I know that with us in making up a municipal budget for the year, all of the departments are cared for, and finally 'How much have we got left?' They figure out how much they have got left. 'Now, how much are we going to need during the year for miscellaneous expenses?' They figure that up, and what is left we get for street repairs.

"It behooves each one of us, it seems to me, to attempt to educate our people in the necessity of street repairs. How often we hear our friends who are fortunate enough to be able to travel abroad, tell us about the beautiful pavements in Paris, in London, and all over Europe. They say: 'Why can't we keep up our streets like those?' We say that: 'It is possible if you are willing to foot the bills.' If we tell them that in the city of Paris the cost of maintenance of the ordinary macadam pavement is nearly 35 per cent per square yard, or practically half the price of an ordinary macadam pavement that we now lay here, then they are surprised. When we tell them about the repairs in the city of London, which they often speak of, they are still more surprised when they learn what it costs. But to me it seems that it is our duty to attempt to educate our people up to the fact that if they want good streets, they want skilled men to take care of them, because they need nursing just like a little child; they want proper material and they want sufficient funds to take care of them."

Co-operation for Good Roads

James M. Head

Speaking on the subject, "Co-operation in Permanent Paving," Hon. James M. Head, former mayor of Nashville, Tenn., said: "As the playground for the poor, the

Digitized by Google

highway for commerce and the pleasure route for the rich, the public road vitally affects the health, the convenience and the happiness of the whole community. Notwithstanding the advent of the bicycle, the automobile and the traction engine, with its caravan of freight, we are still constructing, repairing and rebuilding our streets and highways on pretty much the same general lines we did before these vehicles of rapid transit, dust distributors and road destroyers came into general us. There has been little or no radical improvement in our methods of road building during the past hundred years. The macadam road first built less than a hundred years ago has been the general model upon which all our streets and road construction for ordinary use has been fashioned. Granite block, wood, brick and asphalt have been substituted for certain purposes, but the macadam form of construction has formed the basis for more than ninety per cent of all the streets and roads built during the past century. The old Roman roads with three feet of solid concrete and masonry were built for endurance. The military roads of Napoleon were built to transport his heavy artillery and military equipment across the mountains, and if we build wisely we will now construct our streets and roads to withstand not only the automobile traffic of the present, but that heavier and more destructive traffic which everyone must see is bound to come in the immediate future.

Million Dollars a Day on Roads

"This country now has approximately three hundred thousand miles of railroad. This immense network of railroad transportation has been built within the past seventy-five years, and represents an expenditure of more than seventeen thousand millions of dollars. During the past five years, however, the building of new railroads has perceptibly lessened, while the expenditures made for enlarged and increased terminal facilities for handling the freight and passenger traffic already built up has rapidly increased, and the expenditures being made by cities, counties, states and the federal government for streets and roads has increased by leaps and bounds. It is said that this country is now spending more than a million dollars per day on its public roads. In a comparatively short time it will be possible to drive wagons, automobiles and traction engines from ocean to ocean and from Lakes to the Guulf.

"What does all this mean if not that the newer modes of transportation, the bicycle, the automobile and the traction engine, have largely taken the place of the branch railroad, and that with the building or more and better country roads and streets every section of our common country will be brought into close touch with every other, the facilities for transportation and communication will be multiplied many times, and the railroads, seeing this great influx of new business, have quit extending their own lines and are preparing their terminal facilities to properly handle this increased business?

Need of Universal Concerted Action

"While the federal and state governments have long since ceased to extend aid through cash donations or large land grants, or lend their credit to build new railroads to make a few individuals millionaires, they have adopted the wiser policy of building, owning and maintaining for all the people a free highway system for the whole country. That congress can establish and maintain a post road system for the free distribution of its mails, just as constitutionally as it can build and own the postoffice for its collection, is now generally conceded, and the only question as to the duty of congress to aid in the building of public roads is purely a question of policy.

"There has never been any question as to the power of the states to aid in building its public roads, but it has generally been left in practice for the counties, civil districts and cities to look after the public roads and streets in their several localities, with the result that practically nothing of a permanent character has been done outside the towns and cities. The time has now come when the whole country has become aroused to the necessity of united and concerted action between federal, state, county and city authorities, and that an organized effort be put forth for more and better road construction. Congress can act in this most important work, and should be urged to do so by establishing under some national organization laying out a nation-wide system of highways to be constructed in connection with similar organizations upon the part of the several states.

Good Roads Rather Than More Roads

"When this is done and the work undertaken, the actual construction must be on a scale in keeping, not only with the conditions to be met today, but to meet the conditions of the future. It is worse than futile to expend a million dollars a day to build roads which will only last for a day. A national highway which will not withstand the traffic of the heaviest traction engine, with its caravan of from five to ten heavily loaded trailers, all following in substantially the same track, has not been built wisely,

Digitized by Google

nor have the public funds been judiciously expended. The craze to build more roads should not be permitted to run riot with the good sense to build better roads.

"Beginning with the sub-foundation which must be properly prepared to drain the roadbed of all superfluous moisture, the foundation must be sufficiently strong to support the heaviest traffic to which it will be subjected, or else the wearing surface will prove of little service. These are fundamental truths that cannot be too strongly impressed upon the minds of all those in any way connected with the building of roads and streets. The initial cost of a good road or street is as nothing compared to the cost of its maintenance. The state of Massachusetts spent, during the year 1910, $505,533.12 for the construction of new roads, and $518,188.48 for the maintenance of those previously built which had cost the state, including the cost of planting trees, $7,607,780.69.

Building By Bond Issues

"Newer methods of collecting and transporting the produce of the farms to the railroads and cities necessitating heavier road construction than any now contemplated, will inevitably follow the building of better and more efficient means of transportation. This is what is meant by the suggestion that the roads should be built not only for the present but for future demands as well. And as these improvements are intended as much if not more for the benefit of future generations than for the present, it is not only right and proper that their possible needs and requirements should be considered, but it is equally just that they should be expected to contribute their proportionate share of the cost of these improvements. The only economic and just method of providing for the construction of large areas of roads, whether constructed by federal, state, county or city authority, separately or jointly and at the same time distributing the burden between the present and future generation, will be by the issuance of bonds for such an amount that the interest thereon and a sinking fund sufficient to retire the bonds at their maturity will equal the amount which the authority issuing the bond is willing to expend annually in the construction of new roads, leaving the maintenance to be provided for as at present.

"To illustrate what I mean, if the state of Massachusetts is willing to expend half a million dollars annually in the construction of new roads, until the state road system is completed, and can float her bonds at three per cent, this would authorize the issuance of at least ten millions of bonds, an amount more than sufficient to double the present mileage of improved roads in the state, and at the same time provide a sinking fund sufficient to take up the whole bond issue in thirty years. In this way a completed road system for the state would be perfected and the state would not increase the total amount now being expended annually for new roads one dollar.

Union of Effort

"What greater work could this municipal congress undertake than the perfection of some plan for organizing and putting into practical operation this scheme to unite the efforts of the federal, state, county and city authorities in one grand effort to build now, a road system for the whole country that will last, that will answer the demands of the present and future traffic to which it will inevitably be subjected, and that will make available for this purpose at once a sum sufficient to complete at least the essential portion of this system for the whole country. The bill introduced by Representative Linthicum, of Maryland, and now pending in congress, is a start in the right direction, and could be made the basis for such action as would unite the federal, state, county and city governments in an honest effort to accomplish practical results, and not fritter away valuable time and money in patchwork, and as is too often the case, by working at cross-purposes, and in such a way as will necessitate all of the work being done over again in the very near future. There are so many opportunities for co-operative work in this general scheme that there is scarcely a town or hamlet where some agency cannot be put to work to aid in carrying out the general undertaking.

"The employment of convict labor in the construction of public roads has long been looked to as one means of settling the controversy between convict and free labor. While the utilization of convict labor in building railroads has in many instances proven entirely successful, and in numerous instances satisfactory, where used in building public highways, the system has never been put in operation on a large scale by any of the states, but that is no reason why it should not be, nor does it prove that the system, if properly installed, will not prove eminently satisfactory to the state and greatly beneficial to the convicts themselves."

Digitized by Google

Reduction of Fire Waste

The Country's Inexcusable Loss

H. H. Glidden

Said Mr. Glidden, in a discussion presided over by E. B. Case, of Chicago: "Property destroyed by fire is irrecoverable; it is forever gone. If replaced it must be re-created, other products of nature consumed, other labor expended. This is a direct tax on the productiveness of the people, payment of which cannot be escaped. If the loss of the individual is not made good through provision as previously made, it is nevertheless finally absorbed, the direct loser's resources being crippled or exhausted, the loss falls in part upon his friends, his neighbors and his creditors; he ceases to be as profitable a customer as before, even if he be left self-sustaining.

"The direct loss by fire in 297 cities of the United States having a population of 20,000 and upward, during 1910, with total population 29,996,723, was $71,559,097—a per capita loss of $2.35, as against 45 cents per capita for 1910 in thirty-five similar cities of England, France, Germany, Ireland and Norway, having over thirteen millions of people. The comparison is humiliating. This, bear in mind, is only the direct loss, the value of the property destroyed. To this is to be added the indirect loss through disturbance of business, loss of profits, loss of rents or other use of property, maintenance of fire department, use of water, private expenditures for fire-extinguishing devices, cost of collecting and disbursing the fund out of which the individual losers are wholly or partially indemnified, in all probably as much more, so that we are confronted with an annual loss and expense by reason of fire—that good servant but hard master—of fully $4.78 per capita per annum.

"Why? Because we fail to appreciate the danger that exists almost everywhere. Because we are lacking in that sense of personal responsibility that leads to regard for the safety of our neighbor's property. Because we are lacking in that moral courage that is insistent upon our neighbor having due regard for the safety of our own. Because we expect laws and ordinances to act automatically, to be self-enforcing. Because we are in too much haste, and haste leads to waste. We are not thorough. We are too prone to adopt makeshifts, to be content with a 'lick and a promise.' We build too many buildings of combustible material, arranging the materials as we would if we intended them to burn. Because we have a false conception as to who bears the loss. We think that because the loser is directly indemnified by another it is the loss of another, not ours.

How Lighten the Load?

"How may we lighten the load? By all doing just those things that an enlightened self-interest would impel each of us to do were we each certain that whatever the loss we must each bear his own. We would lessen the possible total loss in any one fire as much as possible by sub-dividing our destructible property as to location into as many parts as we would with due regard to economy in the conduct of our business; we would isolate all highly volatile or combustible material and processes of a specially hazardous nature. Where we had concentration of values we would provide the highest type of protection, and over all exercise an intelligent, vigilant care.

"It is apparent that the state is directly interested in preventing the destruction of property by fire or otherwise, in order that the basis of the revenues may not be decreased, resulting in increased taxation on the remainder. Hence it has authorized municipal government to maintain fire departments at the public expense, has in the police powers granted them, given them the means of suppressing the causes of fires, has branded the willful destruction of property by fire as a crime, and in many states has established the office of state fire marshal with comprehensive powers, looking particularly toward minimizing the causes of fires. We have given great attention to the spectacular pound of cure—fire extinguishment; we should no longer so sadly neglect the more important ounce of fire prevention."

Fire Prevention Recommendations

H. N. Kelsey

Said Mr. Kelsey: "The appalling loss of life and property by fire in the United States is the greatest evidence of the indifference of the average citizen in matters

Digitized by Google

pertaining to the general welfare. It is a revelation of a national trait of prodigality and great wastefulness in a people. The United States geological survey, conducted by the Hon. Herbert M. Wilson and John L. Cochrane, investigated the fire loss and also the cost of fire protection in the United States in 1907 and report as follows: "The investigation disclosed the fact that the total cost of fire in the United States in 1907 amounted to almost one-half the cost of new buildings constructed in the country for the year. The total cost of the fires, excluding that of forest fires and marine losses, but including excess cost of fire protection due to bad construction, and excess premiums over insurance paid, amounted to over $456,485,000—a tax on the people exceeding the total value of the gold, silver, copper and petroleum produced in the United States in that year.

"'The cost of building construction in forty-nine leading cities of the United States reporting a total population of less than 18,000,000, amounted in 1907 to $661,076,286, and the cost of building construction for the entire country in the same year is conservatively estimated at $1,000,000,000. Thus it will be seen that nearly one-half the value of all the new buildings constructed within one year is destroyed by fire.

"'The total fire cost in this country is five times as much per capita as in any country in Europe. The fire cost was greater than the value of the real property and improvements in any one of the following states: Maine, West Virginia, North Carolina, North Dakota, South Dakota, Alabama, Louisiana and Montana.

Eight Times Greater Per Capita Than Europe

"'The actual fire losses due to the destruction of buildings and their contents amounted to $215,084,709—a per capita loss for the United States of $2.51. The per capita losses in the cities of the six leading European countries amounted to but 33 cents, or about one-eighth of the per capita loss sustained in the United States.'

"This country has lost, since the year 1866, by conflagrations alone—i. e., by single fires involving a loss of one-half million dollars or more—the enormous sum of $936,-551,135. We have now an annual fire loss for the last ten years approximating $222,-090,851.

"In 1908, a normal year, our ash heap cost $217,885,850, our estimated fire-defense cost equalizing about 50 per cent of the value of the new buildings erected that year in the entire country. Our contributions to fire that year were over one and one-quarter million dollars each day of the year—a sum equal to the operating expenses of our government, including those of our army and navy for the same year; and in 1909 we gave to fire over $25,000,000 more than was spent in that year for the same governmental functions. In 1910 our fire loss was $214,003,300, and in 1911 the losses bid fair to amount to $300,000,000.

"Since 1880 the population in this country has increased 73 per cent, while the fire loss for the same period has increased 134 per cent. Loss by fire is an irretrievable one; the value is wiped out of existence. Insurance is only a distributer of the loss, and the funds so distributed come from the pockets of the people. Over one-half of the destruction of property is due to carelessness and from such causes as are easily preventable.

"Many of the governors at this time are issuing proclamations establishing a 'fire prevention day,' to-wit., October 9th, the date of the great Chicago fire. This, if rightly developed by public officials and citizens generally, will arrest the attention of the individual to this great national ash heap, and impress upon him his individual responsibility; but municipalities will have to follow up such a movement with laws which will convert the good intentions of such well-meaning citizens who have had this subject brought to their attention into active operation.

Preventive Measures

"We recommend the establishment on the part of every city of a fire prevention bureau, in which the activities of the fire department and all municipal authorities, including the state fire marshal, or public prosecuting officials and boards of underwriters in fire prevention work should co-operate, center and become effective. Firemen should be given power, in conjunction with the fire prevention bureau, to enforce their recommendations, even to demolishing buildings unsafe and a menace to life and imperiling other property. Every state should have its fire marshal to investigate the cause of every fire, with power to examine witnesses and to compel attendance, and to hold any one so examined to the crime of perjury for false testimony. The repeal of valued policy laws is essential to the lessening of criminally caused fires. Every village and every city in this country should be alert in its building ordinances to see that they are strictly enforced and that they are adequate. The promiscuous burning of trash in cities and villages in the open should be prohibited and the authorities should require that all refuse be burned in a suitable constructed burner, which would confine the flame and prevent its spread.

Digitized by Google

"The size of hose couplings in neighboring cities should be made uniform and interchangeable, so that in case of necessity the apparatus of several cities would be available for service in the stricken city. Automatic fire-extinguishing apparatus in all commercial establishments and city blocks of unusual area, which are a menace to surrounding property, should be introduced; better still, buildings should be prohibited which are in area and height a menace to surrounding property. The manufacture, sale and use of the 'snap' or 'incendiary' match should be prohibited. The loss of life and fires caused from careless use of matches, as well as from the use of bad matches, is one of the most prolific causes of fires. Our country uses 10,000 matches a second—more than in all the civilized countries combined.

Proper Electrical Ordinances

"The introduction of proper electrical ordinances is a movement which is well advanced, and every city that is without an ordinance as provided by the national electrical code should at once enact the same. Chimneys should be inspected before they are permitted to be used. Defective flus are one of the most common causes of fires. The protection of outside openings and the elimination of inside open shafts will prevent the spread of fire within and without the buildings.

"Great good can be accomplished by cities and the state as well in the education of the youth on the dangers of fire and in simpler fire hazards and methods of extinguishment and the rescue work and fire drills in our public schools. Every boy and girl should be a fire warden and a fire fighter.

"To any city or village desiring to put its own house in order, we respectfully refer them to the following organizations who can furnish proper laws and ordinances on almost all subjects dealt with in this paper, and on many other subjects not mentioned herein. I refer to the National Board of Underwriters, the National Fire Protection Association and the Committee on Publicity and Education, who have headquarters in this city."

Fireproof Construction

Edward F. Croker

Edward F. Croker, former fire chief of New York City, and now president of the Croker National Fire Prevention Engineering company of that city, said on fire prevention: "I have fought the fire demon in New York City for twenty-seven years, twelve of which were spent as the ranking officer of the uniformed force. Throughout these years I was steadily and irresistibly led to the conclusion that, while fire-fighting and fire-extinguishing organizations of our great modern cities had reached a high state of efficiency and were keeping well abreast of the demands made upon them, our citizens, as a rule, paid too little attention to the vital matter of fire-prevention, of which I have always been a consistent advocate.

"This utter destruction of more than a quarter of a billion of dollars in property in addition to the lives incalculable in money value, is not an act of God nor one of the inevitable chances of industry and commerce. All that is necessary is to apply the test of comparison with other countries of like civilization. In round numbers, the per capita fire loss in the United States has been from $2 to $4 against 33 cents in the principal European countries. One of the conditions in these countries that operates to effect a lesser loss than here is the large use of non-combustible materials due to the high cost of wood. Another reason is the intangible influence of their older civilization, which makes these people more careful of small savings in all their affairs and generally more cautious than we have yet become.

"Fireproof" Not Yet Fireproof

"The fire loss in the United States, which is between seven and eight times that of the greatest European country, is outrageously and criminally greater than it should be. It has been my observation that the large majority of fires arise from preventable causes. If we are to better conditions you must realize that 'fireproof' is not 'fireproof' as it is understood today. The literal definition remains, but many crimes have been committed in its name. I know of no more abused word. I am sincere in the conviction that the government should make it a heavily punishable offense to apply the term to anything but an absolutely fireproof building. There is but one principle to fireproof construction, be it either homes, hotels, office buildings, theaters, apartments, battleships, railway cars or what. To have fireproof buildings architects and owners must throw aside precedent and eliminate the use of combustible and semi-combustible materials in their construction.

"If I had my way about it I would not permit a piece of wood, even the size of a lead pencil, to be used in the construction or finish of any building in the United States

Digitized by Google

exceeding a ground area of 25x50 feet or three stories in height. If there was still an absolute necessity for its use, if it could not be replaced with steel, as it has been in many modern constructions, it would then be well to attempt to conceive of something better. We have no department of our government devoted to the matter of fire prevention. Our laws on the subject are not specialized to completely cover any particular building or business, although they could be made broad enough in their general application to go a great way toward partly solving the problem. It is my firm conviction that the United States government should establish a department, founded somewhat on the lines of the pure food law, for the purpose of establishing laboratories whose business it should be to test and classify various materials used throughout the construction of fireproof buildings in order that the public may be provided with a satisfactory and sane schedule of standards of known safety and which shall be accepted as such by all departments and authorities in this country, and the law or laws necessary to make these conditions possible should be enacted with the idea constantly in mind that the present so-called fireproof building is such only so far as its exterior is concerned, and that legislation is needed and demanded by the public to insure adequate and proper protection to the lives of all persons who may be called upon to congregate in all buildings of a public or semi-public nature.

Where the Great Fire Loss Lies

"Under the majority of the present building codes so-called fireproof buildings are substantially fireproof in the sense that a conflagration rarely does serious injury to the building itself. The flames may rage from room to room and floor to floor; floors, doors, partitions and all interior fittings may char and be consumed; the contents may be destroyed throughout and some or many of the occupants lose their lives, but the four walls and framework, that is, the organic structure of the building, usually comes through the conflagration intact.

"It is the combustion of contents, not damage to the buildings themselves, that makes fire losses in the United States so heavy, in proportion to the amount spent for new construction. The need, therefore, is not for ordinance requirements which will make the buildings more effectually 'fireproof,' but enactments which will protect the inmates and contents of buildings by making it impossible for a fire once started to course virtually unchecked from room to room and floor to floor of a building whose walls are fireproof. In other words, death proof and conflagration-proof construction are necessary requirements for new compulsory legislation for 'fireproof construction.'

"Future construction must be so required that the starting of flames in one room of a building need not make imperative the instantaneous exit therefrom of all persons employed in the building, or even on the floor where the fire starts. Means of safety, for both persons and property, must be secured, in the building and even on the floor where the fire starts, by making impossible the instantaneous converting of elevator shafts and stairways into flues for the flames, and by making impossible the rapid spread of flames from room to room and floor to floor.

"Nothing could be more dangerous, more expensive, or more unnecessary, than the idea that the safety of workers in factory and loft-buildings can best be secured, or can be secured at all, by providing means of rapid exit to the street. The cost of the kind of fire-escapes and the additional stairways properly required, as well as the considerable space occupied by such devices, would make them almost prohibitive in expense, even if practicable or effectual, which they could not be.

Death Proof and Conflagration Proof

"Even if, however, all the occupants could be got out safely and in time, no reason appears why the contents should be left to the mercy of flames coursing from room to room and floor to floor until checked by the activities of the firemen. Both persons and property should be afforded protection in the building, by making its construction really fireproof, that is death proof and conflagration-proof, thereby confining the flames to a limited area within which to burn themselves out, consuming only such contents as are not removed to safety behind doors and partitions as effectually fire-resisting as the walls themselves.

"One great lesson which many recent fires in New York and elsewhere have taught, is that no building is more fireproof than are its doors and windows, while the presence of wood in trim or casing anywhere lessens, to that extent, the fire-resisting and fire-confining power of the structure. No matter if the walls are fully fireproof, doors of wooden construction permit the flames to sweep from room to room and floor to floor, instead of being confined to one room, as is possible in fireproof buildings in reality—not fireproof only in name.

"Every building should have straight, broad stairways of fireproof construction, and every door and partition, no matter how small or how temporary, should be fireproof. Right here I want to say to you that by the term 'fireproof' as applied by me to doors,

Digitized by Google

partitions, and all other interior work of buildings, I do not mean slow burning, near–fireproof, or any of the other so–called makeshifts which are used in many instances.

When a Building Is Really Fireproof

"One of the most notable fires in the history of New York City was the Singer building fire of last fall. Combustible material in a room on the twenty–sixth floor of that structure caught fire on the morning of September 29, just one year ago today and was a mass of flames before discovered. The incipient conflagration was of course far above the height at which firemen could work effectively, and if the building had not been really fireproof the structure would have become a giant chimney through which the flames could have coursed and destroyed at will. This building, however, was completely equipped with hollow steel doors and trim throughout, so perfectly enameled and grained that even an expert in wood could only detect their true composition by sounding the trim with a metallic substance. The result was that the fire practically burned itself out in the room in which it started before the arrival of the fire department.

"To me there is a fascination about steel interiors. Within the next year I expect to build a home. I am going to have it absolutely fireproof, without having to make excuses for using the term fireproof. It is going to be far more artistic than even the old tinderboxes. I am not going to spend a fortune on it, either, for the slight additional expense incurred in eliminating wood will be comparatively insignificant and will prove a perpetual asset in the long run. Just to demonstrate that my fireproof ideas can be carried to homes I am going to fire my house as soon as it is completed and prove conclusively that it will not burn, simply because it cannot."

"Fire Prevention Day"

Charles Seyferlich

Said Chief Seyferlich, of the Chicago fire department, presenting resolutions which the conference adopted: "The fire waste in the United States and Canada was $234,470,650 last year, and this year threatens to exceed a quarter of a billion dollars. The majority of these fires were easily preventable by the exercise of ordinary precautions. The loss of life by fire is over 10,000 annually, beside many thousands more who suffer terrible injuries. Much of this loss of life and property is due to carelessness, municipal and individual, and on this the public requires education. They way to get lower insurance rates is to have fewer fires. The way to reduce the fire waste is to prevent its causes.

"This excessive and unnecessary fire waste is most noticeable in towns and cities. The increasing congestion of population and values in the large centers make better protection to life and property against the hazards of fire a matter of great importance. The per capita fire waste in this country is almost ten times that of Europe, the difference being accounted for by better construction, less carelessness, and a high sense of individual responsibility abroad. Therefore be it

Resolved, that the International Municipal congress endorses the various efforts that are being made to reduce the fire waste of the country by improving the water supply and fire protection, securing better building ordinances rigidly enforced, educating the public as to its individual responsibility for fires;

Resolved, that we endorse the plan of having October 9, the anniversary of the Chicago fire, set aside each year as 'Fire Prevention Day,' when the subject can be considered in the schools and by commercial organizations, municipal authorities can promote valuable clean-up movements, and the campaign against the fire waste can be given the benefit of such official endorsement and approval."

Digitized by Google

Control of Milk Supply

Discussion

At the conference on "Control of a Milk Supply," Dr. W. A. Evans, Chicago, chairman, presented a list of twenty questions previously agreed upon for discussion. These were:

"1. Should there be a bacteriological standard for milk?

"2. Should there be different standards for milk when the milk is brought into town by train, brought into town by wagon, and consumed on the premises where produced?

"3. Should there be infants' milk, adults' milk, and cooking milk, or different grades of milk from these three different standpoints?

"4. Should milk be dated?

"5. Should there be a tuberculin test requirement?

"6. Should milk be pasteurized for cities of over 50,000, for cities of less than 50,000, for villages?

"7. Should butter be made only from pasteurized milk?

"8. How should summer complaint, typhoid fever, scarlet fever and diphtheria be controlled from the standpoint of milk?

"9. Should farm inspection be done by city men for milk, for large cities and for smaller cities?

"10. Is farm inspection by members of women's clubs feasible in large cities, in small towns?

"11. Should milk producers be licensed by cities where their milk is sold? If so, what should be the license fee? Should it pay for the cost of tuberculin testing? Of inspection?

"12. Should there be a temperature requirement? Should it apply to farms, to railroads, to wagons?

"13. Should the dirt test be applied?

"14. Should town cows be advocated? That is to say, town cows kept in town for the purpose of production of milk.

"15. Should a municipal milk supply be advocated, a municipally owned milk supply?

"16. Should milk producers and handlers, both, be required to pass an examination and obtain a license?

"17. How should bacteriologic samples be taken?

"18. How should milk be examined bacteriologically?

"19. How should milk be examined for dirt?

"20. Should the acidity test be used?

At the conference on "Control of Milk Supply" were: Dr. W. A. Evans, Chicago, chairman; Dr. Guy Lincoln Kiefer, Detroit, Mich.; John LeFeber, Milwaukee, Wis.; Dr. Francis E. Fronczak, Buffalo, N. Y.; Dr. Alfred French Storke, Oak Park, Ill.; Dr. Edward Goodwin, Bay City, Mich.; Dr. Heman Spalding, Chicago; Dr. Oscar Dowling, New Orleans, La.; Dr. E. R. Hayhurst, Maywood, Ill.; Drs. Foley & Bellows, Waukegan, Ill.; Dr. W. E. Park, Rockford, Ill.; Dr. Charles H. Bower, Council Bluffs, Iowa; Dr. Otto Plutschow, Little Rock, Ark.; Dr. Hasbrouck DeLamater, Kansas City, Mo.; Mr. W. C. Phillips, Milwaukee, Wis.; Mr. Fuchs, St. Louis, Mo.; B. E. Sherman, Chicago; A. Gehrman, Chicago; B. Perry, Chicago; C. J. Hastings, Toronto, Ont., Can.; A. D. Melvin, Washington, D. C.; C. E. Ford, Cleveland, Ohio; J. H. Landis, Cincinnati, Ohio; M. P. Ravenel, Madison, Wis.; Mr. Krufft, Milwaukee, Wis.; G. S. Edmonson, Clinton, Ill.

Dr. M. P. Ravenel

Said Dr. M. P. Ravenel of the University of Wisconsin: "There are a number of these questions that we could at once agree upon. Should there be a bacteriological standard for milk? It seems to me that that does not admit of discussion. There should be. Second, should there be different standards of milk handled by train, handled by wagon and consumed on the premises where produced? It seems to me that you must admit this difference and must recognize it. In the handling of public product we must bear in mind always that the purpose of milk inspection is the conservation of the public health, and therefore the differences must not be great enough to endanger public health, but that those differences must be recognized as stated. Third, should there be infants' milk, adults' milk, and cooking milk? I personally

Digitized by Google

object to any difference in the standards of milk except for babies and for grown people. A grown person can handle a milk which a baby cannot digest. That difference I appreciate and am willing to admit a certified milk for infants, but make no greater distinction for adults than that.

The Dating of Milk

"Fourth, should milk be dated? It seems to me there is no question about that. It should be dated. Fifth, should there be a tuberculin test required? That does not admit of debate. There most certainly should be a tuberculin test required. Sixth, should milk be pasteurized for cities of over 50,000, for cities of less than 50,000 for villages? I do not think that you can lay down any law as to that. That depends entirely on the location of the city and its milk facilities. For instance, Richmond, Va., gets its milk from within ten or twelve miles; there pasteurization should not be done but they should have the pure milk. That question, with its three specifications, I do not think can be handled by definite rules laid down.

"Seventh, should butter be made only from pasteurized milk? I should say butter should be made from certified milk, or from an inspected milk, but not pasteurized always. Pasteurization of milk is the safeguard that should be demanded where you do not know the source of supply, but otherwise I would not demand the universal pasteurization of milk for butter.

"Eighth, how should summer complaint, typhoid fever, scarlet fever and diptheria be controlled from the standpoint of milk? That is a question I would rather not discuss until I hear some of the health officers speak on it.

Farm Inspection

"Ninth, should farm inspection be done by city men for milk, for large cities and for smaller cities? For large cities it seems to me that it should be done by the city that is consuming that supply, unless the state from which that milk comes has an efficient inspector whose inspection can be accepted by the city. For instance, take the city of Chicago which gets a great deal of milk from the state of Wisconsin. The way things have been for some time it has been a matter of necessity for Chicago to go in there and inspect the Wisconsin farms. That, too, cannot be decided just offhand. Circumstances will control some of the rules and regulations for the individual places.

"Tenth, is farm inspection by members of women's clubs feasible in large cities and in small towns? That is another question that I think should be discussed by somebody who has had more work in that connection.

"Eleventh, should milk producers be licensed by the cities where their milk is sold? If so, what should the license fee be? Should it pay the cost of tuberculin testing and inspection? As to this question, it seems to me that that hardly admits of discussion; they should be licensed, they should be under control. The license fee must vary with the circumstances. And the other part of the question I do not care to discuss at the present moment.

Temperature

"Twelfth, should there be a temperature requirement? Should it apply to farms, railroads, wagons? There should always be a temperature requirement, applying to all three. That question is answered 'yes' to all. Thirteenth, should the dirt test be applied? Yes. Fourteenth, should town cows be advocated? No, I do not think so under any circumstances. Fifteenth, should a municipal milk supply be advocated? That is a question that will need a great deal of consideration. I do not feel competent to speak on it positively one way or the other. Certainly municipal control should be advocated.

"Sixteenth, should milk producers and handlers be required to pass an examination and obtain a license? I should say yes. There are some points which might come up, but the general answer to that question is 'yes.'

"Seventeenth, how should bacteriologic samples be taken? The only honest, fair and straight way for these to be taken, in my opinion, is from the wagon, the delivery wagon. One other way which we used in Philadelphia for a long time is to have the dairy men deliver every day, year in and out, samples from the particular dairy without knowing which is going to be examined and which not. Generally speaking, however, the sample should be taken from the delivery wagon because you want to know what your people are getting, not what they start out to do but what is actually being sold to people on the street.

"Eighteenth, how should milk be examined bacteriologically? I do not quite understand that question. If you want the methods that must be gone through with I should say without going further that we should adopt the standards adopted by

Digitized by Google

the American Association of Medical Milk commissions and by the American Public Health association. Nineteenth, how should milk be examined for dirt? I think the ordinary filtration test is sufficient. Twentieth, should the acidity test be used? It has been demonstrated, I think, pretty conclusively over and over again that it does not answer the entire question. It could not be relied on absolutely."

Judgments of the Conference

The conference voting on question four unanimously decided that milk should be dated.

The conference unanimously decided with reference to question five, that city and state legislation should provide for a tuberculin test.

The conference unanimously decided, with reference to question twelve, that municipal ordinances and state laws should have a temperature requirement.

The conference unamiously agreed that the dirt test, as under question thirteen, should be provided for by city and state.

The conference unanimously accepted the milk examination standard of the American Association of Milk commissioners.

The conference unanimously adopted a filtration method described by Dr. B. E. Sherman, of Chicago, and Dr. Ravenel. The test involves a pint of milk, a filter pump, a piece of absorbent cotton, and standard laboratory records.

The conference discussed at length the problem of fixing a bacterial standard for milk, the question being whether there should be a standard in cities supplied by railway transportation, another for cities supplied by wagons, and another for cities where the cows are within city limits, these several standards being determined by the average time in transit between cow and consumer. The conference rejected this plan of standardization.

The conference unanimously favored a bacteriological standard.

Control of Contagion

The conference engaged in important discussion about the control of diptheria, typhoid fever, scarlet fever, summer complaint, etc., through control of the milk supply, and also of public library books. Chairman Evans remarked that in the large cities precautionary methods were about the same relative to communicable disease, but that an advance in practice also worthy discussion was this:

"Should diarrhœa, infantile diarrhœa, be made a reportable disease, and should an account be kept with every milkman as to the number of cases of infantile diarrhœa on his milk routes, amongst the people whom he supplies with milk? Should then a rate be made for that man, or, in other words, should it be determined that for the month of July, let us say, a man is entitled, so to speak, to a certain number of cases of infantile diarrhœa for each can of milk that he sells?

"I think that practically no typhoid fever is spread from household to household by the milkman who supplies those households. There is some, but not very much. It is not to be compared to the typhoid fever that is spread by milkmen who have typhoid in their families, or amongst those who assist in the production of milk. I believe that at least three-fourths of the typhoid in Chicago is spread by milk. I am quite satisfied that that is a conservative estimate. It is, I think, very much the most important method of spreading typhoid fever that we have in a city like this. When it comes to the spreading of diptheria and of scarlet fever, they are of some importance but not really of the importance that typhoid and children's complaints are.

"Now, we have a placard in front and one behind and there are restrictions under which the man delivers milk to the place and has to conform to restrictions for the taking away of bottles. But that does not check the distribution of typhoid in milk. You have got to keep a typhoid account against every milkman if you are going to get it. There are several ways in which that can be done. You will be helped in it a good deal by keeping spot maps of diptheria and other communicable diseases, but really the only way to do it is to have your investigation of each case of diptheria and your report into the office on every case of typhoid fever, which report will show the milk dealer supplying that case with milk at the time the disease was contracted—which, of course, is not always the same thing as the milk dealer who supplied it at the time the disease was under investigation.

The Minimum of Toleration

"Now, it is not fair to charge the dealer up with every case of contagion on his route. If you shut a dealer out every time he has a case of contagion developed amongst his customers, you would put everybody out of business, because in a large

Digitized by Google

city like this, where these diseases are endemic practically all the time, you have to allow a certain number of cases to each man delivering milk. Therefore we try to work out what we call a normal; that is, we allow a man a certain number of cases of typhoid and we try to work that out on the can basis; that is, every can of milk is entitled to so many cases of typhoid, and so long as the number of cases keeps below that normal it is held that the typhoid amongst the people that drink out of that can is contracted through water, through flies, or through filth or through the other ways in which typhoid is contracted. When it goes materially above that normal then there comes in a probability that the man is contributing to the spread of the disease. There is, as I see it, a very much more important thing to take into consideration in the control of typhoid fever and of infantile diarrhœa than the things on which ordinances usually carry.

"It does no good at all to let the report come into the office unless there is a system of bookkeeping in that office under which they are charged up, and that system of bookkeeping must take into account several different factors. It must take into account the season of the year, for the September factor—normal factor—for typhoid is naturally higher than the January factor for typhoid. The same thing is true of baby complaint. On the other hand, the conditions as to season would be reversed with diptheria. A high diptheria rate amongst a man's customers in December would mean nothing to what that same diptheria rate would mean if it prevailed during August.

"Then, of course, there comes the other thing and that is, what is the method of inspection employed to prevent typhoid and diptheria and scarlet fever from getting into the milk supply out on the farm? Of course, those bacteria do not live for a long time in milk. Nevertheless it has been clearly proven that typhoid on the farm that gets into the milk on that farm remains as a pathogenic long enough to get to the customer and to get into the customer; and so towns have different methods of inspecting the farms for typhoid and of controlling typhoid on the farm. The question is, what is to be the method employed for carrier cases of typhoid as differentiated from other cases of typhoid?

"Farm inspection for typhoid is quite unsatisfactory everywhere that I know of, even so far as developed cases are concerned. So far as carrier cases and typical cases are concerned I do not know of any town that has anything really adequate except New York City. New York City has men in the field who are investigating typhoid carriers on the farm, conducting laboratory investigations, etc."

Milk as Carrier of Consumption

At another session of the conference on methods of controlling a milk supply, Dr. Oscar Dowling, of New Orleans presiding, Dr. Ravenel, director of the Wisconsin State Hygienic laboratory said: "I wish to talk about the danger that there is in milk in carrying consumption, and I want you to remember this particularly, because a great deal of controversy has been carried on on this subject, and here, in your own state of Illinois, the last legislature passed a law which forbids a city to protect its citizens, denies the right of the city to protect its citizens against consumption carried through milk. That was one of the most backward steps that has ever been taken. The city of Chicago had good ordinances, was protecting the lives and the health of the people in a way that has not been excelled by any city in the world, and the state legislature steps in and knocks the props from under them, and said they must not keep you from drinking milk that carried consumption. This is a controversy that has been going on for some time.

"Professor Koch has never said that consumption in cattle was entirely different from consumption in mankind, or that the germ producing consumption in cattle was very different from the germ producing consumption in mankind. He said they were two different species of one and the same germ. The German government appointed an imperial commission, and the English government appointed a royal commission. Both of these commissions have reported. The German government, out of eighty-four children examined, found twenty-one of them, or one-fourth of all the children they examined, that had died from consumption, had died from the bovine germ. The English commission did not examine quite as many cases, but they came to the same conclusion as the German imperial commission. Their figures are a little less than one-quarter, but practically one quarter of all the cases they examined died of the bovine germs.

"Have Your Cows Been Tested?"

"In our own country the most tremendous piece of work has been done in the city of New York by Dr. William H. Tark, the director of those laboratories, and he has shown us that in the city of New York there are upwards of 300 children that die every single year in that country on account of bovine germs, that is the germ

Digitized by Google

derived from cattle. The germ which causes consumption of cattle kills, in the single city of New York, 300 children every year. I do not myself believe that milk, from a tubercular cow is very dangerous to grown people. I concede that there is a danger, but as far as our studies have gone—and I have spent about fifteen years studying this question myself—I never have been able to detect deaths in grown people from the milk of tubercular cows; but when it comes to children the case is entirely different.

"When your milkman brings milk to the house, say to him, 'Have your cows been tested for tuberculosis?' 'No.' Then, stop dealing with him, and don't feed your children on such milk as he has been furnishing, and don't give them milk unless it comes from healthy cattle. The people can stop it by refusing to take milk unless a certificate goes with it, showing that that milk has been properly tested and safeguarded in its production. Where your laws protect you and your board of health is doing everything to protect you, you are all right; but if the state legislature steps in, or your board of health does not protect you at any time, then go directly to your milkman and refuse to accept any milk from him which is not known to be clean. Don't let him say that he thinks so; don't let him say he doesn't know. You must know positively that the milk comes from cattle which have been tested for the tuberculin tests, and that it comes from cattle free from tuberculosis; and that is the only way that you can protect your children from this disease."

Tuberculosis in Dairy Cattle

Dr. A. D. Melvin

Said Dr. A. D. Melvin, director of bureau of animal industry, department of agriculture: "With the advance of scientific knowledge there has come a greater realization of the dangers from impure milk and it has been shown that a number of infectious diseases are spread through this medium. There has also been a great advance in the official regulation and control of milk supplies, and much has been done in the way of private philanthrophy with the object of furnishing safe milk free of charge or at small cost to poor people who are ordinarily the greatest sufferers from an impure milk supply. If we are to have a milk supply that is reasonably free from danger there is need for official supervision and control at every stage of the process from the cow to the consumer.

"The greatest menace to the health of dairy cattle and the most frequent source of the infection of milk is tuberculosis. From information collected by the bureau of animal industry it is evident that on an average more than 10 per cent of the dairy cows of the United States are affected with this disease, and in some sections the percentage is much higher. The systematic tuberculin testing of all cattle in the District of Columbia showed that nearly 19 per cent were tuberculous, and in herds in Maryland and Virginia supplying milk to Washington the percentage was nearly as high. This condition is not exceptional as compared with other large cities.

"Unfortunately there is a common belief among dairymen, which is shared by many other people and even by some public health officers, that there is no danger of the milk becoming infected with tuberculosis unless the udder of the cow is diseased, or at least unless the cow is in such an advanced stage of tuberculosis that the disease can easily be detected by physical examination. This belief is contrary to facts which have been well established by investigators in the bureau of animal industry and elsewhere.

The Tuberculin Test

"We now know from careful observation and experiments that the germs of tuberculosis are excreted by many cows that are affected by tuberculosis to such a slight degree that the disease can not be discovered by ordinary physical examination, but can be detected only by the tuberculin test. Many cows of this class, with the outward appearance of perfect health, discharge vast numbers of tubercle bacilli in their feces, with which the stable and other cows and the milk become contaminated. If there is only one such cow in a herd the milk of the entire herd may be infected through the particles of bacteria-laden manure which find their way into the milk pail. A slightly tuberculous cow, if not already an actual danger, is certainly a potential danger, as she may begin discharging germs at any time, and it is impossible to determine by ordinary physical examination just when this stage is reached.

"The tuberculin test when properly applied is exceedingly accurate. Statistics collected by the bureau of animal industry covering nearly 25,000 cattle which reacted to the tuberculin test and were slaughtered show that tuberculous lesions were found on post-mortem examination in 98.39 per cent of the carcasses. Of 378 reacting cattle slaughtered in the District of Columbia within two years, all but 6 showed lensions of tuberculosis on post-mortem, a percentage of accuracy of 98.41. By means of

Digitized by Google

microscopic examination we have been able to find tubercle bacilli in the lymph glands of reacting cattle in which no lesions could be found by ordinary methods of post-mortem examination, and this indicates that infection is really present in an incipient state in such cases. The accuracy of the tuberculin test therefore seems to be really higher than is indicated by the percentage figures given.

Procedure in Fighting Tuberculosis

"While working toward the ultimate end of the complete eradication of tuberculosis from dairy herds and other herds also, we should render all doubtful milk safe by means of pasteurization. It must not be thought that in eradicating tuberculosis all that is necessary is to test the cattle and remove only those that react. Not only must this be done, but when infection is found the premises must be thoroughly disinfected and all the cattle retested within six months, and this procedure must continue until all infection is destroyed. Also all cattle added to the herd must be known to be free of disease and exposure. If not, they should be isolated until the state of their health is established.

The following resolutions which were unanimously adopted at the annual meeting of the National Association for the Study and Prevention of Tuberculosis, at Denver last June, present a concise statement of the views of qualified men who have made a study of the tuberculosis problem as related to the milk supply:

> "'Whereas, it has been demonstrated experimentally by bacteriologists of high standing in this and other countries, and by two governmental commissions, that the bovine tubercle bacillus causes serious and fatal tuberculosis in human beings; and
>
> "'Whereas milk from tuberculous cattle appears to be the medium through which transmission of bovine tuberculosis to human beings most commonly takes place; be it
>
> "'Resolved, that the National Association for the Study and Prevention of Tuberculosis recognizes the danger to mankind from tuberculosis of cattle; and be it
>
> "'Resolved, that this association recommends that all cows furnishing milk for human consumption be subjected to the tuberculin test, and that all animals which react to this test be excluded from dairy herds; and be it further
>
> "'Resolved, that where these measures can not be efficiently carried out, the association recommends the efficient pasteurization of milk as a safeguard against the transmission of bovine tuberculosis to mankind.'

"As a basis for regulating the milk supply I have for some time advocated the classification adopted by the Washington milk conference, that is, that all milk should be officially classified in three grades, namely, certified milk, inspected milk, and pasteurized milk. The first two classes, certified and inspected, would have to come from healthy cows and be produced and handled under conditions which would render it practically safe in the raw state. All milk failing to meet the requirements for these two grades should be put in the third class and made safe by pasteurization. A fuller definition of these three classes as adopted by the Washington milk conference is as follows:

What Certified Milk Should Mean

"'Class 1. Certified Milk:

"'The use of this term should be limited to milk produced at dairies subjected to periodic inspection and the products of which are subjected to frequent analysis. The cows producing such milk must be properly fed and watered, free from tuberculosis, as shown by the tuberculin test and physical examination by a qualified veterinarian, and from all other communicable diseases, and from all diseases and conditions whatsoever likely to deteriorate the milk. They must be housed in clean, properly ventilated stables of sanitary construction, and must be kept clean. All persons who come in contact with the milk must exercise scrupulous cleanliness and must not harbor the germs of typhoid fever, tuberculosis, diphtheria, or other infections liable to be conveyed by the milk. Milk must be drawn under all precautions necessary to avoid infection, and be immediately strained and cooled, packed in sterilized bottles, and kept at a temperature not exceeding 50 degrees F. until delivered to the consumer. Pure water, as determined by chemical and bacteriological examination, is to be provided for use throughout the dairy farm and dairy. Certified milk should not contain more than 10,000 bacteria per cubic centimeter, and should not be more than twelve hours old when delivered. Such milk should be certified by public health officers or by some other properly constituted authority.

Digitized by Google

Inspected Milk and Pasteurized Milk

"'Class 2. Inspected Milk:

"'This term should be limited to clean raw milk from healthy cows, as determined by the tuberculin test and physical examination by a qualified veterinarian. The cows are to be fed, watered, housed, and milked under good conditions, but not necessarily equal to the conditions prescribed for class 1. All persons who come in contact with the milk must exercise scrupulous cleanliness and must not harbor the germs of typhoid fever, tuberculosis, diphtheria, or other infections liable to be conveyed by the milk. The milk is to be delivered in sterilized containers and is to be kept at a temperature not exceeding 50 degrees F. until it reaches the consumer. It should contain not more than 100,000 bacteria per cubic centimeter.

"'Class 3. Pasteurized Milk:

"'Milk from dairies not able to comply with the requirements specified for classes 1 and 2 should be pasteurized before being sold, and should be sold under the designation 'pasteurized milk.' Milk for pasteurization should be kept at all times at a temperature not exceeding 60 degrees F. while in transit from the dairy farm to the pasteurizing plant, and milk after pasteurization should be placed in sterilized containers and delivered to the consumer at a temperature not exceeding 50 degrees F.

"'All milk of unknown origin should be placed in class 3 and subjected to clarification and pasteurization. No cow in any way unfit for the production of milk for use by man, and no cow suffering from a communicable disease should be permitted to remain on any dairy farm on which milk of class 3 is produced, except that cows which upon physical examination do not show physical signs of tuberculosis may be included in dairy herds supplying milk of this class.

"'This milk is to be clarified and pasteurized at central pasteurizing plants, which should be under the personal supervision of an officer or officers of the health department. These pasteurizing plants may be provided either by private enterprise or by the municipality, and should be located within the city.

"'By the term 'pasteurization' as used herein is meant the heating of milk to a temperature of 150 degrees F. or 65 degrees C. for twenty minutes, or 160 degrees F. or 70 degrees C. for ten minutes, as soon as practicable after milking, in inclosed vessels, preferably the final containers, and after such heating immediate cooling to a temperature not exceeding 50 degrees F. or 10 degrees C.

"'Other Conditions:

"'No milk should be regarded as pure and wholesome which, after standing for two hours or less, reveals a visible sediment at the bottom of the bottle.

"'No dairy should be permitted to supply milk of a higher class than that for which its permit has been issued, and each dairy farm supplying milk of a specified class should be separate and distinct from any dairy farm of a different class. The same owner, however, may supply different classes of milk, providing the dairy farms are separate and distinct.

Pasteurization Must Be Thorough

"'The term 'milk' as herein used includes cream.'

"It is recognized that many cows may react to the tuberculin test that are affected but slightly and locally, and that there could be no possible danger from their milk at the time the test is made. Unfortunately, however, this condition can only be positively known upon post-mortem examination. From this condition there is a gradual increase until we reach the stage where the disease may be determined upon physical examination. Many of the cows thus slightly affected are valuable milk producers, and to remove them from the milk supply is not only a serious loss to the owner but also to the consumer by lessening to that extent his source of food. To permit the sale of milk from cows which do not show disease on careful physical examination, after the milk has been properly pasteurized, seems to me to be reasonable and very desirable.

"Experience has shown it is not safe to leave pasteurization entirely to the dealer. In too many cases so-called pasteurization is only a perfunctory operation carelessly performed, or a term used to catch trade. Sometimes the milk is heated to an unnecessarily high temperature so that its quality is impaired, or on the other hand the proper temperature is not maintained long enough to make the pasteurization effective. The so-called 'flash' process of commercial pasteurization is not reliable. Bacteria in large numbers, including tubercle bacilli, have been found by the bureau of animal industry a number of times in milk that was sold as pasteurized.

"Since tuberculosis is so prevalent among dairy cattle, and other infectious diseases are often spread by milk, it is important that all milk not classed as certified or inspected should be pasteurized; and since commercial pasteurization is not always properly done, the pasteurization should be done under official supervision. In the case of dealers having proper equipment the process could be carried out at their plants under official supervision. In the case of dealers not so equipped, however,

Digitized by Google

there should be a central or municipal plant or plants, to which milk should be required to be brought for pasteurization.

"The discovery within the past few years that apparently healty persons may be the carriers of disease makes the question of pasteurization a very important one, and I have nearly reached the conclusion that all public milk supplies should be pasteurized, and if possible in the final container.

Temperature in Pasteurization

"As a result of careful study and experiments by the bureau of animal industry, my judgment is that pasteurization should be performed by heating the milk to not less than 140 degrees F. for not less than twenty minutes, after which it should be rapidly cooled. For commercial operations it would perhaps be well to require either a slightly higher temperature (145 degrees F.) or a little longer time (thirty minutes) in order to be on the safe side. Milk that is pasteurized in this way will sour in a normal manner and will be free from the objectionable qualities which are sometimes attributed to pasteurized milk and which are caused by excessively high temperatures. We have no scientific evidence that milk pasteurized in a proper manner is any less nutritious or digestible than raw milk or that it is in any way injurious.

"It is well known that there are other infections besides tuberculosis, such as typhoid fever and diphtheria, that are sometimes conveyed by milk. These are due to the milking of the cows or the handling of the milk by infected persons, to infected water used in washing cans or utensils, and occasionally to the insufficient cleansing of containers that have been returned from infected households. Such contaminations should be guarded against by a rigid system of inspection and surveillance which includes examination of water supplies and examination of persons engaged in the production and handling of milk. Pasteurization is also here a safeguard that should not be neglected unless conditions are known to be safe.

The Bacterial Count

"Another valuable agency in obtaining a healthful milk supply is the bacterial count. The number of bacteria found in milk is believed to be a reliable indication of the sanitary condition of the milk. When the bacterial count of milk from a certain herd is habitually high it is practically certain that the milk is being produced under insanitary conditions or handled in an insanitary way. I therefore believe that a maximum limit of bacteria should be officially prescribed, and that all milk exceeding this limit should be further controlled. There has been some difference of opinion among authorities as to the exact limit. In my judgment the maximum standard should be an average of 100,000 bacteria per cubic centimeter for ordinary market milk; that is, the average bacterial counts of milk from any given source for a certain period should come within this figure. Cleanliness and cold are the two most important factors in keeping down the bacterial content of milk. It may therefore be advisable to require that milk should be promptly cooled and kept within a certain temperature during transportation and up to the time of delivery. This temperature should be not above 50 degrees F.

"The score-card system of dairy inspection has been found a very useful and effective means of determining the sanitary condition of dairy farms and milk establishments and of bringing about improvement. By the use of this card each farm or establishment is given a definite rating on certain specific things, so that it is easy to be seen in just what points the deficiencies lie. A farmer who is given a copy of the score of his dairy is thus given a definite statement which will aid him to overcome particular defects in his establishment or methods. A full description of the score-card system has been published in a circular of the bureau of animal industry, and the bureau will be glad to furnish copies on request.

Local and Federal Authorities Must Co-operate

"The control of the milk supply is a broad undertaking which, to be successfully carried out, requires the efforts of both the local and the federal authorities. So far the administrative regulation of the milk supply has been done mostly by municipal authority. The federal government has co-operated, but its work has been usually of a different character. The bureau of animal industry, for example has made scientific investigations regarding tuberculosis, pasteurization, and other subjects; has studied practical methods of dairying with a view to helping dairymen to improve their methods for the benefit of both producer and consumer; has co-operated with numerous cities and towns in the matter of their milk supply, and has studied their methods of producing, transporting, handling, and delivering milk; has promoted competitive exhibitions of milk and cream and encouraged the production of wholesome products; has

Digitized by Google

furnished tuberculin to public health officers, and has applied the tuberculin test to a large number of cows, especially dairy cows for interstate movement; has given numerous lectures and addresses at public meetings, and has prepared and distributed a large quantity of literature relating to the various phases of the milk question. The bureau of chemistry of the United States department of agriculture in administering the food and drugs act has examined milk shipped in interstate commerce with a view to the detection and prevention of adulteration. The United States public health and marine hospital service has also studied the milk problem and given valuable assistance in the movement for better milk. But so far the federal government has not undertaken to require the tuberculin test, pasteurization, a maximum bacterial content, a maximum temperature, or other sanitary measures with regard to milk produced in one state and transported into another.

Federal Supervision

"It is evident, however, that there is a growing need for better federal supervision over interstate milk and other dairy products. Some idea of the extent of the interstate traffic in milk may be obtained from figures relating to some of our cities which draws a large part of their supply from other states. There are twenty-four of the larger cities of the country that are situated so near the state line that they receive milk from other states, and the same is true of many smaller cities. New York City receives part of its supply from 15,000 dairies in other states, Boston from 7,000, Chicago from 4,000, St. Louis from 2,500, and Philadelphia from 1,000.

"Of course the city authorities, although their jurisdiction may be technically limited to their own territory, are frequently able by indirect methods to control the milk supply drawn from beyond the city limits and even from other states. They can not directly enforce inspection over dairy farms or milk beyond their jurisdiction, but they can usually say that milk which does not meet their requirements shall not be permitted to enter their jurisdiction, and dairymen who wish to send milk to the city are led to submit to the municipal inspection. Hence in this indirect way the city health authorities can to some extent enforce their requirements as to milk from outside their territory. But their work could be very effectively supplemented if the federal government were to exercise its authority with regard to the inspection of interstate milk, and such a service on the part of the federal government would greatly improve the milk supply of the country and remove much of the danger that now exists.

More Need for Milk Inspection than Meat Inspection

"A few years ago there was considerable agitation about evils in the packing houses, and the result was the enactment of a stringent federal meat-inspection law under which all meat prepared at establishments doing an interstate or export business is now carefully inspected. I do not wish to appear sensational, but it is a fact well established by observations of the bureau of animal industry that there is far greater need for the inspection of milk than for the inspection of meat. Milk is much more liable to be contaminated with infection; and as it is usually consumed in the raw state, while meat is usually cooked, there is much greater danger to the consumer from milk than from meat. An effective system of federal inspection of milk and other dairy products must be based on the principles of the meat inspection, dealing not only with the finished product but with all the stages of production. To put into effect such a system will require additional legislation by congress and the appropriation of funds."

Inter-Community Milk Inspection

Said Dr. Ford:

"I want to call your attention to certain activities that have occurred in the central portion of this country, to supplement the work done by various municipalities. I refer to the subject of city or inter-community milk inspection. This is a plan that was devised by a milk inspector in Ohio, who conceived the idea of exchanging information received by milk inspectors of one city for that obtained by those of another city. For instance, in Chicago the information is secured that there is scarlet fever or some other disease on the farm of John Smith, in a certain district, and milk is obtained from that district by the city of Cleveland. The result is that the local inspector, Dr. Sherman, will notify us of the fact, and we, in turn, will notify him of similar difficulties that we learn about, under our inspection.

"At a meeting last year the following subject in connection with the question of inter-city inspection, was discussed: Score cards, minimum score, the individual cow, cleanliness preventing disease, tuberculin tests, temperature, icing, bacteria count, washing milk cans, stable construction, walls, floor, ceiling, air space for cows, light and ventilation, removal of manure, condition of barn yard, milk houses, their con-

Digitized by Google

struction and size, purposes for which they are used, milking, cleanliness, etc.; health of the milkers, individual health and cleanliness, utensils, quality, quantity and cleanliness.

"Last year the following was adopted:

"'Whereas, the department of health of the cities of Pittsburg, Cincinnati, Cleveland, Columbus, Youngstown, Lorain and Akron, which cities draw their milk supply from the same territory, recognizing the necessity for the protection of the public health, through co-operation of the health department toward bringing about a uniform standard of milk production and supply, do hereby

"'Resolve, that no milk or cream refused by any of the cities represented at this conference, because of the faulty conditions at the dairy or in violation of the conditions imposed by the codes of these various cities, shall be accepted by any of the other cities represented.'"

Conclusions of the Conference

After the conference discussion of the problem of milk control a special committee was appointed to formulate the mind of the delegates and to submit a report on the apparent conclusions of the conference for the benefit of the public at large. This committee, after some weeks of consideration, Dr. M. P. Ravenel, chairman, submitted the following:

"The committee to which was intrusted the report on the control of the milk supply, begs to make the following suggestions: We have deemed it best to follow as closely as possible the outline considered at the meeting and to conform with the opinions there expressed.

"The subject of control of the milk supply was considered under twenty heads put in the form of questions. Some of these came to a vote and the committee in this report conforms to the vote there taken.

"1. Should there be a bacteriologic standard for milk? There should be. We believe that a bacteriological examination furnishes the best single test known for controlling the purity of a milk supply.

"2. We believe that these differences should not be recognized as here stated. The question resolves itself into one of time. We therefore consider it proper that standards should take into account the length of time between the production of milk and its delivery to the consumer.

Classifications

"3. Different sorts of milk are already in commerce and must be recognized. We recommend that milk be classified into (A) certified milk, (B) inspected milk, (C) guaranteed milk, (D) skimmed milk, (E) butter milk. All of these may be pasteurized and should follow the same grades with the additional designation, 'pasteurized.'

"4. All milks, whether served in cans or bottles, should be dated; the said date giving the day of production. In cases where bottling is done in cities, the cap of the bottle should bear the date of production on the farm.

"5. The tuberculin test should be required for all unpasteurized milk except that which is to be used for cooking purposes. Guaranteed and certified milk must, in all cases, come from tuberculin tested cattle.

"6. Pasteurization should be recognized for cities and villages regardless of their size. The local conditions must determine the wisdom of making pasteurization compulsory.

"7. Unless butter is made from guaranteed or certified milk, the cream for its production should always be pasteurized.

"8. ————.

"9. Farm inspection is a necessary factor in the control of milk supply regardless of the size of the city.

"10. ————.

Licensing Products

"11. The licensing of the producers of milk is to be recommended. The fee for this license must depend on the local conditions, and the committee does not feel in position to make recommendations concerning it. The questions as to whether it should pay for the cost of tuberculin inspection are entirely bound up with the amount of the fee and no definite recommendations can be made. We feel that with the establishment of the principle of licensing, the other points connected with it must be determined according to local condition.

"12. There should be a temperature requirement as the changes taken in milk are due largely to high temperature. Regulations concerning this point should apply to farms, railroads, and to wagons.

Digitized by Google

"13. We regard the dirt test as being a valuable procedure in controlling any milk supply.

"14. We do not advocate the keeping of cows in cities for the production of milk.

"15. We do not advocate municipal milk supply but strict control by the municipal authorities.

"16. We recommend the principle of examination and license for both milk producers and handlers.

"17. Samples for bacteriological examination must be taken from the wagon which is making delivery without previous notification to the distributor.

"18. We recommend the adoption of the standard methods proposed by the American Association of Medical Milk commissions.

"19. ————.

"20. The acidity test has little value in the control of milk supply. At times it may be useful but it can not be recommended to take the place of any of the ordinary procedures."

Digitized by Google

Contagion and School Inspection

Discussion

At a session of interests concerned in the question of "Control of Contagion, and School Inspection," Dr. W. A. Evans presiding; this conference also took up a list of twenty questions which had been previously distributed, and these questions were discussed by members of the conference. The questions were:

"1. Should houses be disinfected after scarlet fever, diphtheria, tuberculosis?
"2. Should carriers be excluded from school?
"3. Should schools be closed for epidemics of scarlet fever diphtheria and measles?
"4. Should vaccination be required for school children in cities, in small towns, in the country?
"5. Should diphtheria be diagnosed on throat culture?
"6. Is a laboratory a necessity in a health department?
"7. Should typhoid be a reportable disease?
"8. Is it feasible to charge each case of contagion against the milk dealer, having an average determined for him, and then call to account any dealer having contagion disproportionate to his supply?
"9. Should the department have a list of customers of each dealer?
"10. Should cases of late tuberculosis be universally hospitalized?
"11. Should all diphtheria be hospitalized?
"12. Should scarlet fever be hospitalized?
"13. Should all smallpox be hospitalized?
"14. Should schools have physical examinations?
"15. Should schools have dental examinations?
"16. How many pupils should each examiner examine per day?
"17. How should examiners be paid?
"18. How can the children needing medical attention get it for (a) bad teeth, (b) eyes needing glasses, (c) adenoids and tonsils?
"19. How many schools should an examiner attend?
"20. Should the attention be concentrated on (a) backward children, (b) the early grades, (c) the late grades?

The foregoing questions were answered by Dr. Guy L. Kiefer, of Detroit; Dr. Herman Spalding, of the health department of Chicago; Dr. J. H. Landis, health officer of Cincinnati, and by Dr. Kuhn by letter. The conference as a whole then passed upon certain questions as follows:

The provisions of number one were extended to cerebral spinal meningitis, poliomyelitis and smallpox.
The conference voted yes on number two.
The conference voted yes on number four.
The conference voted yes on number six.
The conference voted yes on number seven.
The conference voted yes on number thirteen.
The conference voted yes on number fourteen.
The conference voted yes on number fifteen.

Closing of Schools in Epidemics

Discussion of question number three—closing of schools in certain epidemics—brought out conflicting opinions. Said Dr. Landis of Cincinnati: "I cannot understand how, getting anywhere from twenty-five to fifty children together in a school room, that condition is not going to encourage the spread of infection. If the children are out of school, they are out in the open, contact is not as close as it is in school, and every condition favoring the spread of an infection is done away with."

Said Dr. Hastings: Our custom in Toronto is to close the school room and not the entire school. As far as a danger of the spread of the disease is concerned, and out in the open, I do not think that is possible at all. I think there is infinitely greater danger of spreading the disease in the school room than when the children are out in the open."

Said Dr. Delawater, of Kansas City: I would be very much averse to closing the schools against smallpox, because if you have the weapon to keep out the unvaccinated ones, you can control the epidemic."

Digitized by Google

Said Dr. Spalding: "Temporary closing of the school and closing the room are not the same thing. We, in Chicago, always enter a room where there is a case and culture it, close the room temporarily, overnight, separate those that are carriers from those that are not carriers. That is not closing the school."

Said Dr. Evans: "The health department of Chicago gets a great many inquiries on this proposition. Frequently the health officer wants to close the school, and the board of trustees wants the school kept open. That is nearly always a reason for asking our opinion about it. If the school is going to be kept open, without any observation, it will do harm to keep the school open, and if the school is to be kept open with fairly good observation by the teachers, and if it can be supplemented by medical observation, you are very much safer to bring the children together at least once a day where they can be looked over. Practice has to vary according to the type of people that you have. If you are in a community like Oak Park or Evanston, where people are careful, it does not do much harm by closing the schools and putting the children in their homes, because the parents look after them pretty closely, but if you have a district where there is a large foreign population, or where the people ar disposed to hide things anyhow, you would be much more successful in finding them if you will keep your schools open and observe them there. My opinion at least would endorse the opinion of the recent literature that the schools should not be closed."

Said Dr. Fronczak, of Buffalo: "I move you that it is the sense of this conference that the schools should not be closed for epidemics of scarlet fever, diphtheria, measles, smallpox, cerebral spinal meningitis and poliomyelitis, unless special circumstances warrant it."

Said Dr. Fuchs, of St. Louis: "I think when an epidemic exists in a neighborhood or in a school, and where children are in close contact, when set up in a close atmosphere, I think a school ought to be closed if the epidemic is sufficient to warrant it. I think that to say that a school should not be closed is ridiculous, where a great many cases of infectious diseases occur."

Criterion for a Closing Policy

Said Dr. Evans: "Here is a place where the community good is paramount, and now, if it is the judgment of people who have carefully studied this thing, that the sum total of diphtheria is increased by reason of closing the schools, then let us not close the schools. If it is the judgment of people who have carefully studied things, that we can control an epidemic of smallpox better, that we can save people from having smallpox by having the children go to school, then let us by all means keep the schools open, and if anybody should be actuated by reason of opportunity, in the name of God who more than we? If the accumulated wisdom of the men that have observed, if the accumulated wisdom of the men who are here now considering these things says that schools should be kept open, then let us say so, whether it is listened to or not. If the accumulated wisdom says, 'Close them,' let us say so. If people want to be governed by what we say, all right; if they don't want to be governed by what we say, all right, but we at least are acquitted of responsibility for wrong action."

Said Dr. Kiefer: "I agree with Dr. Evans. I have had experience in the matter, and it was my judgment to refuse to close schools in Detroit where there were outbreaks of these diseases, and I think the community fared better, for the reasons stated this afternoon. If a body of men like this body of men will stand back of such an opinion, we would be a good deal stronger in standing against the opinion of the family physician, as I have had to do in my city and as all of you have had to do."

Said Dr. Edward Goodwin, of Bay City, Mich: "Take a small town of 40,000 or 50,000, where there is no medical inspection. If an epidemic breaks out in a small town, would the board of health be justified in closing the schools in that town?"

Said Dr. Evans: "I believe the schools should be kept open and that school inspection should be instituted for the purpose of covering that particular emergency. The general police power, under which health departments are created, gives power. Keep your school open and demand inspection as a means of controlling the epidemic."

Coming to a vote the conference unanimously favored keeping schools open under the conditions of question number three, and further resolved that where a school has not medical inspection this should be installed.

Open Schools Favored

The conference also voted that the medical control of school inspection should rest with boards of health. Upon this point Dr. Evans said: "I am of opinion that the physical welfare of the child is more conserved and better conserved by the board of education looking after the physical efficiency than by the board of health. I think that is due to the fact that the board of health has ordinarily only looked after the comfort of the people, and the condition of their health. As soon as they become depart-

Digitized by Google

ments of physical welfare, logically this will belong to the board of health. But we are now in the transition period, with room for argument on both sides of the question, the question concerning the physical well-being of the child."

Discussing question five the conference voted that in diagnosing diphtheria it should not be practice to await the result of a bacteriological examination, that is that the original diagnosis may be made on clinical symptoms.

The conference delegated to a committee of three to be appointed by the chair the duty of summarizing the opinions of the main body on undecided questions, such conclusions, however, not necessarily being issued as the authoritative utterance of the main body.

Digitized by Google

Parks and Playgrounds

Logic of the Public Playground

Edward B. De Groot

Said Mr. De Groot, chairman of the conference: "It has been my pleasure in the last few years to entertain a great many men and women from other cities who have come to see these wonderful playgrounds in the city of Chicago. There have been two questions or problems most fundamental in the minds of all of the visitors; there have been other questions, of course, but two paramount questions, so to speak, have controlled the thoughts of those who have come to visit Chicago: First, there has been the thought, why have playgrounds? That seems to me like a singular question to put because from Maine to California and from the Canadian line to the Gulf of Mexico we have playgrounds in almost every one of our cities. Yet these people who come to us, who are part and parcel of the playground movement in their own towns, want to know why have playgrounds? Secondly, they are much concerned as to who shall manage playgrounds after they are secured, and after they are in operation. I shall try to analyze those two questions briefly.

"First of all, I believe there is great trouble about that first question because it is being treated as sort of a first aid to the injured children. There is not in many of our towns I guess, notwithstanding all the great activity in playground work, a really constructive program. You are simply giving the poor children something for the time being, instead of studying the real needs of the children with relation to our complex civilization and setting up a comprehensive constructive program; instead of all that simply these bits of things are being devised for the children temporarily.

Necessary Regulation of Play

"The reason for having playgrounds of course is found in the onwârd march of this complex civilization. We need the common playground where the children of the neighborhood may congregate and have an opportunity to work out all of their play instincts and tendencies just as we need a common water system. We must regulate street traffic. Likewise, we must regulate play at this time, and in fact the law has regulated it by regulating it off the streets and the vacant lots and the usual places of play. Let us see just what has happened in the lives of children. Civilization has taken from them their two most precious possessions, those possessions which I believe had most to do with the development of the courageous, honest men and women we see today of about fifty or sixty years of age; I mean that the children of today are without the back yard and the front yard which was a precious possession in the lives of all of us who had our play some forty years ago. Just picture for a minute what that yard meant to us, front or rear, with its lumber pile perhaps with rusty nails in it and a hammer surely at hand to knock them out, and with a shovel at hand to dig in the dirt, possibly a cow shed, surely a chicken coop, and possibly a little barn where we had our little pets, our animals to care for. There were innumerable opportunities for play and for occupation which engaged the thoughts, the attention and the hands and minds of children all day long.

"Second, there were the occupations of father and mother. Back in that time girls worked with their mothers securing the food, making the foodstuffs which would be palatable, but in these days, as you know, they simply rush the daughter out to the delicatessen store and there they purchase everything the family needs. Then again there is not the wood gathering and chopping and those innumerable chores children had to do which brought them into close contact with their parents. These have been replaced by the apartment buildings with the apartments which look like post office boxes, one on top of the other and a little two by four playground presided over by the janitor who is ever ready to chase the boys out onto the street.

Passive vs. Active Recreation

"The most serious thing of all is that we have taken away these occupations but have placed nothing in their stead, and commercialism has presented passive recreation rather than active recreation. In the past the occupations of children and their recreations were very active. They were compelled to make great exercises to get their

Digitized by Google

play, to build things. Now there is substituted something where they sit idly by and watch something move past, or simply pay a nickel or dime for something that is very passive.

"First, we observe the moving picture show, which occupies the attention of over 40,000 children daily in Chicago, I am told. These children patronize the moving picture show after five hours of school work, sitting passively in a seat while something moves by. Now, apply your educational principles and see what is happening to the child. The child is unquestionably deteriorating when taking that as a form of recreation or occupation. Obviously the child should be out upon the playground after school hours being his own moving picture, making his own motions, rather than sitting still and seeing something move by.

"Then take the second form of amusement, so common now, the amusement park, and note what goes on there, the forms of recreation. You will see two young folks or more step into a roller coaster car and this will be raised by machinery to a high elevation and there gravity will furnish all of the pleasure which formerly would have been secured by some effort on the part of the occupants of the car or boat.

"Then take the third form of recreation which is so common now with our young folks, that of the dance hall. The dance hall in itself might not be an evil if well conducted, but note the deterioration in dances. Once upon a time we had very active dances. Now we have nothing but the two-step and waltz, and the lower down the scale you go in society the more passive those dances become, and it is no wonder that our young folks at midnight or past midnight are then sufficiently aroused after dancing, to go out and have an active time. Obviously the thing that is needed there is the old time recreation 'Old Dan Tucker,' 'Captain Jinks,' and the 'Virginia Reel,' which will send the young folks home tired out and desirous of sleeping.

"So we need the playground first of all, it seems to me, to restore to children and young folks active recreation; and we need it for many other things which the educator would tell you about, which the sociologist would tell you about, for its wonderfully educational and social effects; but we need it, it seems to me, first of all, for this active recreation.

Who Shall Control Playgrounds?

"Now the second question: Who shall control playgrounds? First of all, to answer that question we must analyze play problems. There are, I conceive, three fundamental play problems in every community. First, there is the problem of furnishing play spaces and play for little children who are too young to travel great distances to any playground which might be set up for the common good in the community. That is a serious problem. Second, there is the problem of caring for the children of school age who are attending school. That is a problem by itself and quite distinct from the first one. Third, there is the problem of caring for children and young folks who are not in school—the young boys and girls who have broken out from school and gone to work, who are, perhaps, very young still; and then there are the older boys and girls. That, it seems to, is a distinctly different problem from the other two and must be treated differently.

"Now, to whom shall we go for the solution of these problems. Who shall control the playgrounds? It seems to me we should look to the tenement house reform groups for the solution of the first problem, plus the real estate boards. It seems to me possible to get the real estate boards in the habit of building blocks for residential purposes where the inner part of the block is reserved as a playground and where there may be the paddling pond, the teeter-board, swings, and things of that kind. Where even the residents of that block might combine and pay the salary the year round of a kindergarten to care for the children in their play.

Playgrounds About Schools

"Second, it is quite obvious the school should attempt to care for the play time of the children in school as much as the study time, and we must look more and more to our school boards to surround their school buildings with grounds. I believe if that is done there will be less truancy because the school will be coupled with play rather than tasks, and it will undoubtedly improve the appearance of our school buildings which now in many communities look like manufacturing plants of a very different order than we would like to have them look. It is possible, I believe, for school boards to work out a system of playgrounds which will enable them to care for a decidedly greater number of children in each building. The school board in Gary, Indiana, has in fact worked that out. There a great number of children come in excess of what the building will hold. There the superintendent manipulates his periods of school play; he has a group playing upon the playground every hour of the day while other groups are occupying the building, and then they alternate, those on the playground coming in while those in the building go out upon the playground. I think that idea can be

Digitized by Google

carried to its ultimate conclusion, which would be a covered playground in winter and an open one for the better months of the year.

Park Recreation Centers

"The third problem, which to my mind is just as important as either of the other two, involves a great many boys and girls who have left school far too early and who are working in shops and factories and who acquire a little wage every week, and have money in their pockets when they go out upon the street to buy fun, and fun they will buy of a very questionable character. That group in the community needs just as much careful consideration as those in school or the children at home. It seems to me, the park boards should take up that problem and devise, as Chicago has, a new kind of park, a park for use as well as a park for beauty. These playgrounds in the parks should be of course developed as recreation centers where there would be evening recreation, where they would be well adapted to the needs of older boys and girls.

"So one should not quarrel very much over who should control the playgrounds. The essential thing is to get them at this time somehow. The ultimate solution of the play problem in the larger cities at least will be found in the creation of a recreation commission, because right hand in hand with providing a constructive program for play we must provide, it seems to me, a constructive program looking to the closing up of any evil places of recreation and the regulation of much of the recreation that goes on in much of the big cities, where it is so commercialized. And so a recreation commission might be all inclusive; it might provide the play for the three groups I have mentioned and it might do the other thing which is close up much of the evil recreation. Any group, it seems to me, can do yeoman's work in the situation at this time. The important thing is to get the playgrounds at this time, but any group will of course need to have keen appreciation of the problems involved, some vision, and to treat the subject not only as a matter of mechanics but also as a matter of humanics.

"I have mentioned the fact that the playground for the older boys and girls should be developed as a recreation center where possibly we could have buildings so that the recreation may be carried on throughout the entire year. The park boards in the city of Chicago have entered upon such a development, and that development, I take it, has come because of the efforts of the social settlements and the boys' clubs, and institutions of that kind. Miss Addams is here to speak to us upon that subject, and I am sure that she can trace this development as no other person can perhaps in the United States."

The Park Field House

Miss Jane Addams

Said Miss Jane Addams: "Mr. De Groot has told the essential things about the field houses. The field houses, as you know, are the buildings which have been erected largely in the small parks and playgrounds of Chicago so that the parks might be used the year around whether the sun shone or not, or whether it snowed or rained or whatever happened. When we think of it, the parks were a long time coming to this point of view. I remember at the time of the world's fair a number of citizens came together and tried very hard to persuade the citizens who had money that it would be a good thing to move the manufacturers' building down on the lake shore. The lake shore was bare, had nothing on it. The large parks had at that time no buildings within them which could be used in winter, and we made at that time a very careful table showing how many days during the previous year in the city of Chicago it had been impossible to use the parks out of doors; that is, use the parks in the parts where they were uncovered, and taking out the winter months when it was too cold and all the days in summer when it rained or sleeted or was too foggy to be pleasant to stay out of doors, it was surprising how large an amount of time the parks were thrown out of commission simply because no one had provided a covered place.

"If you think of it, the parks copied more or less what was done in the warmer countries. I suppose Italy and Greece had the most beautiful out of doors places that could be imagined, and when the people began to have public buildings, instead of studying what they wanted for their own climate and needs they copied the things Italy had had and Greece had had, and to this very day anybody who wants to put up a building in a public park tries to make it look as much as possible like a Greek temple because I suppose in the earliest days things came from Italy and Greece and they cannot bear to let go of that idea. But since that time a wonderful thing, called steam heat, has been discovered. Steam heat has some very disagreeable features as you all know, and it is said to give people malaria if they stay in it too long; but it does make possible the heating of enormous areas of covered places so that in the middle of a winter and even in the midst of a storm in the winter one can have all the delights of a great open space that only the Italians and Greeks up to a few years ago could have had out of doors.

Digitized by Google

Field House as Education Center

"And so, the field house has come about in two ways, I think; first, on this purely physical side, as people discovered large spaces could be heated and made comfortable, and as they also learned to look about them to find out how much of the time the weather was too bad to permit the use of the parks; and then on the purely social side that Mr. De Goort has been telling us about. The fact that boys and girls were turned out to find their own pleasure, and that the people who were trying to give them their pleasures were trying to make money out of it caused a great deal of trouble and got those boys and girls into a great deal of trouble they would not have gotten into if places such as parks had been provided. At first it was simply giving them a place where they could play their own games. It was discovered, however, very soon that there was great danger in having a big place unless it was supervised. The park commissioners and park police could tell us, I am sure, of great difficulties which they have always had in keeping the parks open and light and making decent places of them. Something of the same difficulty although of course less comes when a building is provided. So in addition to providing a place it soon becomes necessary to provide people who should make that not only a safe place for young people to come, but should also make it a center of education.

Last year three-quarters of a million people used the libraries which are installed in the small parks on the south side in Chicago. I suppose a few of those people would have gone to the Public library, but I imagine only a few because it is a great thing to have books brought right to you, and it is a great thing to have the surroundings when you read something which suggests a pleasant time and not something made as dull and disagreeable as possible. In St. Louis this year they had reading gardens. In connection with their branch libraries all over the city they opened up gardens back of them with benches and tables so that people who preferred to could read out of doors. Something of that sort goes on in the parks all the time. The people feel they are out of doors; they are in a beautiful room surrounded by beautiful things and they can look at the book or look out of the window, and enjoy themselves equally well. That side of life, something that will make things attractive, is very necessary in a city because all of our life in the city tends to make the jibberty-flibberty things attractive and the quiet things unattractive; so if the parks can only restore to their proper place in the minds of young people some of the quieter simpler pleasures, things which they can manage themselves and which the public can provide for them, we believe that that will be a refining influence and one which will make for the common good.

Where Young People Learn One Another

"The women's City Club has a screen up stairs in the gallery on which they show that the City of Chicago in proportion to its population owns no more park space at the present moment than it did in 1871. I will admit that surprised me very much. This is of course proportionate, in proportion to the population of 1871 they had as much open park space as they have now. But, one very great change has come in since 1871 and that change I think can be more nearly epitomized by the field houses than anything else. Of course, when I say field houses I would like to include all of the things which are around about it, the gymnasiums and all that sort of thing which Chicago has been so lavish in, and which it has been so conspicuous in developing since 1871. Then I imagine that the city felt it had done its full duty if it had these open spaces. Fresh air was what the parks stood for and that is certainly very important; but if you can get some inducement so people will come to the parks and take in their fresh air I think they will take with their fresh air some of those things which mean social intercourse at its best, which means young people learning to know each other on the better side which is not on the foolish and frivolous side.

"Then only can we say that greater advance has been made in this new conception of the parks, something which can be used the year around, and that it shall be something which will appeal to the various sides of the children of the city. And perhaps the thing Chicago has offered more than anything else in the way of instruction and help to the representatives of the cities which have been sent to this congress will be the things which are exemplified most strongly in the field houses."

Boston's Public Bath System

Richard M. Walsh

Said Richard M. Walsh, chairman of Boston's bath trustees: "The bath department of the city of Boston, the pioneer among cities in this humanitarian movement, was created by ordinance of the city council in 1898, and has supervision of the public baths and gymnasia of the city. Prior to this time, since 1861, until the effectual organi-

Digitized by Google

zation of the bath department in the year above mentioned, baths were located in rather isolated sections of the city and were under the supervision of the board of health. The number embraces 8 public gymnasia, 9 all-the-year-round baths, 10 floating bathhouses, 6 beaches, 2 indoor swimming-pools and 2 outdoor swimming-pools. The assessed valuation of the property under its control is approximately $2,500,000. It extends its operations over every section of the city, the two out-lying houses being eight miles distant. The sphere of its influence extends to every walk of life, from the professional and business man to the poorest of its citizens in the congested districts of the city. The primary object of the department is the amelioration of the suffering of the poor in the summer and propagation of clean and healthy principles in the homes of the city through the use of the baths, and the constant upbuilding of the health and bodies of its citizenship by recourse to its gymnasia.

The Beaches

"The opening of the summer season in the beaches and in the floating bathhouses, while usually set for June 15 and extends to September 15, is in reality not confined to any calendar dates, but is determined rather by the exigencies of the season. The beaches this year, upon request of Mayor Fitzgerald, were opened on May 23, and continued in operation till the close of the season. The indoor season marks the opening of the gymnastic year when regularly organized classes under the direction of competent instructors taken from the civil service lists, are put into operation. The classes are extremely well patronized by men and women, boys and girls in quest of renewed health or the improvement of their strength or stamina. The work is divided into separate days for women on Mondays and Thursdays, for boys on Wednesdays and Saturdays and for men on Tuesdays and Fridays.

"In connection with this branch of the Department it may be interesting to note the beneficient results effected on Monday and Thursday mornings of each week when 'mothers' classes' so called, recruited from homes throughout the city, convene in the several gymnasia to share in the strengthening effects of the class work.

"Of special interest also are the civil service classes wherein candidates for the police and fire department of the city meet on certain mornings several weeks previous to their examination, to receive the special instruction and work calculated to qualify them before the civil service examiner. An exact duplicate of the strength testing apparatus used by the state board is installed in each gymnasium and the instructors give weekly examinations with marking to determine the improvement or failings of the candidates. By this means the future guardians of the lives and property of the people can tell within a fraction of a point what percentage they will receive.

Municipal Gymnasia

"The physical attainments of the products of the municipal gymnasia have been so pronounced that the civil service commission has raised the standard of physical efficiency 50 per cent. Medical examiners, both male and female, are in attendance at all the class work to give free examinations to all the members of the classes. Corrective gymnastics as a result, are given to large numbers who are afflicted with some radical deformity or who possess weak debilitated frames.

"In the municipal gymnasia of Boston originated a movement which has gained even international interest, so manifestly necessary and advisable was its character. I refer to the subject of mouth hygiene. Faulty nutrition, with its consequent arrest of physical development, early enlisted the attention of the medical staff of the department, and as neglected mouths and infectious diseases of childhood are intimately related, the proper degree of attention was given this important subject. New pamphlets are issued by the bath department yearly, setting forth the necessity and manner of caring for the teeth and mouth, and the propagation of these principles now extends into the medical inspection of the school children throughout the country.

"The attendance of the baths and gymnasia for the year 1910-11 approached three millions of patrons, and as the facilities of the department were afforded them at a cost of $172,894.32, the per capita tax amounting to approximately 5 cents. The attendance at the all-year-round baths amounted to 819,295. The numbers attending the baths, swimming pools and floating bathhouses of the department amounted to 2,888,175. The gymnasium and class attendance totaled 150,591. This in a city of approximately 700,000 population.

"The department was primarily intended and is still conducted as an institution for the poor, and every facility possible is afforded them for preserving a clean and healthy body, while a nominal fee of 1 cent for a piece of soap, and 1 cent for a towel is charged all who attend our baths. In many cases, even among adults, these are furnished everywhere necessity demands, and in most cases the youths of the city are given their towel and soap without charge.

Digitized by Google

Swimming Pools

The department at the present time maintains two indoor swimming pools, one at the Cabot street bath in Roxbury, the dimensions of which are 75x25 feet with a mean depth of 3½ feet and a maximum depth of 7½ feet containing 80,000 gallons of water. Here a swimming instructor is present at all times from 10:00 a. m. to 10:00 p. m., to give every instruction to the citizens who care to take advantage of this opportunity to acquire the art of swimming. Another swimming pool is located at the Columbia road gymnasium in Dorchester, which is 35x42 feet. Here also swimming instructors are on hand. These pools are greatly appreciated by the public, and have been the means of many being taught the art of swimming.

"This coming fall will witness the opening of two of the finest types of municipal gymnasia in the world. The Paris street gymnasium and baths in East Boston, on the site of the first indoor municipal gymnasium in America, and Curtis Hall gymnasium and bathhouse in West Roxbury. In this latter is also constructed a swimming pool similar in size and design, but with a few improvements, to that at Cabot street. These two houses will cater to a long felt want in these two districts. Both have up-to-date and thoroughly equipped gymnasia, and seventy-five shower baths. The cost of these two buildings alone aggregate $250,000.

A Famous Bath

The famous L street bath in South Boston, the home of the celebrated 'Brownies,' so called, was opened in 1861, and has been regarded as the most popular institution of its kind in this country. It is easily accessible to all parts of the city, has facilities capable for caring for the wants of 10,000 men and women and children at one time, each of whom have their own distinctive beach enclosed by fences. During the past year the locker capacity of the building was more than doubled, and a new beach area was acquired for the men, owing to the growing demand. An excellent hand-ball court considered the finest out door court in the country was erected on the beach, and lately the department has installed chest weights for the use of all. These latter have proved immensely popular with all ages, and have served to make this popular resort even more inviting than heretofore. Here 365 days of the year these so called 'Brownies' can be seen taking their daily dip, many times with the temperature considerably below zero, and at times compelled even to break the ice in order to go into the water. A glass house is to be constructed this present winter for the use of these zealous seekers for health, and while it may seem fool-hardy on their part to indulge in such practice, the ever convincing proof is always present that they have been benefited wonderfully by their winter dips. Up to this year this place has been maintained as the only open air place in America where men could go in bathing, nude. The bath trustees deemed it advisable, however, at the opening of the season just closed, to make them don short swimming trunks. The idea has met with the approval of practically everybody.

"We are singularly fortunate at the present time in having as a chief executive, an ardent advocate of these institutions dedicated to health, happiness, and good citizenship in Boston. Mayor Fitzgerald himself, in his youth, an athlete, still retains his interest in athletic pursuit and through his co-operation, the department has been enabled to secure appropriations for the construction of additional bathhouses and gymnasia in sections of the city where their presence was imperative."

Digitized by Google

Hygiene and Sanitation

Discussion

At a session of the congress devoted to hygiene and sanitation, Dr. C. E. Ford, of Cleveland, Chairman, the following committee was appointed to propose a permanent organization of interests for "the study," in the words of Dr. William A. Evans, of Chicago, "of typhoid fever in the communities located on the great lakes and taking their water supply therefrom, and also to study the question of pollution of lakes and streams:"

Dr. W. A. Evans, of Illinois.
Dr. Charles J. Hastings, of Toronto.
R. W. Pratt, of Columbus, Ohio.
Dr. Allen G. McLaughlin, of the United States Public Service.
Dr. Francis E. Fronczak of Buffalo.

Previous to organization the conference took up the question of the time needed for the disappearance of typhoid bacillus from stored waters.

Typhoid Bacillus in Stored Waters

Dr. R. G. Perkins, of Cleveland, said: "One of the men who has done most elaborate work on this is Dr. Houston, of London, England. His conclusions have been brought before the Royal Sewage commission, and have been embodied in various supplemental reports. I may say that he states that in water which is stored after a given sort of treatment, or even the raw water, typhoid bacillus disappears very rapidly, so that after forty-eight hours it is very marked and progressive. He has, however, been very cautious in his statements. I had the pleasure of talking to him personally on the subject a year ago. He is a very cautious man, and while he says it disappears very rapidly, he does not consider personally that any stored water which has contained typhoid would be even approximately safe in a week or ten days. He considers that even after that there are certain of the typhoid organisms which will persist for a greater length of time, and the most definite statement I could get out of him was that after water had been stored for forty days, which had been inoculated with typhoid, he was willing to drink it; in fact he did so, and did so several times for the benefit of people who were discussing the question.

"Many comments have been made on this by the medical press or by the hygienic press of England, as you might say, to the effect that his position is so broad that they cannot draw any absolute conclusion from the matter. He said also—and from what small personal experience I have had in the matter I am inclined to hold with him in that—that typhoid organisms which persist after an interval of two weeks or more are apt to be very much weakened in their activity. By comparison with the other members of the group it is very definitely the case that the colon bacillus and the various fermenting organisms do deteriorate more or less in water, and that if you inoculate the colon into water after a period of weeks, you get a very marked, weakened activity.

"My own personal experience in the matter is this: I have found that in Cleveland water, for instance, which is Lake Erie water of course, water of an average type, rather hard, with a very marked organic content, that I have been unable at any time to isolate the typhoid bacillus by the most careful method, after two weeks. I have had all sorts of isolation up to that time, with a very rapidly decreasing curve, the curve decreasing with extreme rapidity for the first three days. I am free to admit, however, that my experiments are not sufficient to allow me to speak with authority, but it would be my opinion that it would not be advisable at any rate to use water which had probably been infected with typhoid inside of a period of at least more than two weeks, which is probably sufficient time."

Typhoid Bacillus in Ice

In discussion of the question, "How long does it take for typhoid bacillus to disappear from ice?" Geoge W. Fuller, of New York, said: "Bacteria, of course, have weight. They will subside, they will appear as part of a sediment in flowing streams and lakes and reservoirs. The question comes, what is the future of typhoid fever germs which lie upon the bottom of lakes and reservoirs and streams, forming a portion of the sediment? In connection with the great lakes and in some large reservoirs, that brings up the question of what may be the opportunity on a certain limited number of

Digitized by Google

days in the year for bacteria of typhoid fever origin to move from the sediment upon the bottom and become a part of the flowing stream? It is probably that those germs will live under those conditions, not for days or one or two weeks. So far as we know they may live for months, probably years. I am speaking now of what has been called rather aptly the resistent minority, whether that is one-tenth of one per cent or one per cent of the original number, we do not know. It probably varies with different conditions:

"That brings up from the physical standpoint the element of variability with the different bodies of water. Water will stratify; that is, form layers of different density, and genuinely stratify, when it is not disturbed, when there is a difference between the bottom and top water of from two and a half to three and a half degrees Fahrenheit. Wind action, of course, is a great factor. That will create considerable disturbance down to forty feet, perhaps to a limited extent, and a convexional current and isolated movement, down to perhaps fifty or fifty-five feet from the surface, so that the opportunities there vary widely.

"Lake Erie probably never stratifies; Lake Ontario, I know, does stratify and stratifies for a good many months. It stratifies in the winter, because the water beneath the ice is warmer, or rather lighter, than is the water at the bottom. That is, the water is at its maximum density at thirty-nine degrees, and it is a fact that you get more stratification after that. On the other hand, in the summer time it stratifies inversely, and there is the period of the spring and fall overturning, when we have to reckon with this accumulation of bacteria that comes perhaps from sediment, and we do not deal with one per cent or a tenth of one per cent of a resistent minority, but there may be a day when you will get that accumulation of the resistent minority and get perhaps quite large numbers of typhoid germs from the original infection from the point of presentation."

Typhoid Bacillus in Sediment

Said Theodore Horton, of New York: "It is my impression that the life of the typhoid bacillus is very much longer in soil than it is in water. If so, of course, that developed resistent minority or small percentage that would settle there might have very much longer life than in the water itself, consequently might be very much stirred up by the action of currents and brought to intakes."

Said Mr. Fuller: "I think that sediment is likely to have the characteristics of water, rather than of the soil, because the interstices of the sediment would be filled with water. It is undoubtedly true that typhoid fever germs will live for many months, there will be small portions alive at the end of many months, and it is probable that they will live for at least twelve months; otherwise it is very difficult to understand how autumnal typhoid will persist so uniformly year after year. The question is an extremely complicated one from a biological standpoint, in that it brings up the question of bacterial antagonism, and the destruction of some types of bacteria from the waste product of other organisms, and if that were worked out to exquisite perfection, for one sample of sediment here with one group of bacteria, it would be by no means conclusive as to what might take place in the same lake a little later, or a different lake at the same time.

"This question of the life of typhoid fever in sediment, of course, has been debated at enormous lengths in connection with litigation. The Jersey City water supply reservoir, holding about 200 days' consumption, has been the basis, I suppose, of some ten thousand printed pages of testimony. There was never any very great dispute as to the water for say ten months in the year being pretty safe, but there the question focused on the overturning of this body of water of a depth of more than 100 feet, and the bringing up of typhoid fever germs from the sediment by the spring and fall overturning, when there was a shifting of the bottom and top temperature, and also due to extreme flood flows and wind action. That led to the use of hypochlorides for the purposes of sterilization, and that resulted in litigation which had for its nature a suit on the part of the city to try to compel the contracting company to eliminate all sewage from the water coming from several small cities and villages, four or five in number."

Water and Sewage Districts

To the conference question, "Should groups of small towns have water and sewage districts?" Dr. W. H. Smith, of St. Clair, Mich., said: "We have got to have a unity in our work. For instance, we are in St. Clair, twelve miles below Port Huron, and we get Port Huron's sewage. I have not a particle of doubt that under certain conditions it comes down twelve miles to us. In return we put our sewage into the river and it flows down to Marine City, and they get a combination of Port Huron and ours. That is eight miles further down. Now, it seems to me that there is a pretty good reason also to believe that some of this is carried into Detroit, which is about sixty miles from Port Huron, so that it would seem as though all these places on the St. Clair river are

Digitized by Google

bound together, and we have got to solve the thing by simply recognizing a mutual interest, that no one should be separate from the other. Take, for instance, our death loss from typhoid from 1897 in St. Clair, when we have that record. We ran 39 deaths in a town of 2,700 inhabitants. That would mean about 100, I think, on an average for 1,000, according to the ratio on which we figured, and Marine City is still worse, eight miles below us; they have got a death rate of 118 per 1,000."

Dr. E. V. Hugg, Lorain, Ohio: "Mr. Chairman, in Lorain we are situated somewhat like the doctor from St. Clair. We get the sewage from the city of Elyria, which is about ten miles above us on the Black river, and there are times when the flow is rather small in this river, and our pollution is great, but during the greater part of the year the sewage that we get from Elyria is pretty well diluted by passing over quite a number of shallow places, and by the sedimentation. Even if we would get the city of Elyria to co-operate with us and eliminate what sewage they dump into our stream, it would not help us out much. I don't know that I have anything more to say on that."

Said Dr. Edward Goodwin, of Bay City, Mich.: "We are located six miles below Saginaw bay, which is an arm from Lake Huron, and twelve miles south of us is a city of about the same size as our town, the city of Saginaw. Since, we might say, time immemorial those two towns have been cursed with typhoid fever. The exact typhoid rate, the exact data, is not available, because for some reason or other, so many of our physicians have not been educated up to the point of reporting all these cases, and in fact some of the old family physicians look upon it as a sort of a disgrace to report a case of typhoid; but the death rate is high—if anything it is higher than the death rate reported by the previous speaker. Saginaw throws her sewage into the Saginaw river, and then goes ahead and takes her water supply from the same river, drinking her own sewage—a peculiar state of affairs. That sewage travels along the Saginaw river twelve miles and comes to Bay City. We have our water supply from Saginaw bay. Where shall we get pure water?"

Said Dr. Otto Plutschow, of Little Rock, Ark.: "The only solution from a sanitary standpoint is to change from river to wells, as Berlin did. Little Rock now takes from the Arkansas river, about a mile above, but, like other cities above us, we are discharging sewage into the stream. It has been suggested to us that we organize a water district."

Said Mayor G. R. Gerry, of Toronto, Canada: "The Dominion of Canada has passed a bill through one part of its parliament looking to the withdrawal of all sewage from the Great Lakes. We have to have concerted action on the part of all the provinces. That has been in the course of progress for two years. We wanted to get some idea as to whether all the cities in the United States as well as in Canada were going to join in concerted action along that line. When one goes at it, the others must do the same."

Problems of Water Protection

Said William D. Weiss, of Hammond, Ind., president of the Lake Michigan Sanitary Association: "Hammond is just across the border of the Illinois line. We take our water from Lake Michigan. We are separated from five other municipalities simply by an imaginary line—all towns of 15,000, 20,000 and 30,000. Shall each of these municipalities attempt to establish a water supply, a system of sewage independent of the other? The answer is naturally no, under no circumstances should they be permitted to do so, and for that reason the method of doing these things comes into question. It must be controlled either by the federal government, or if not that, then by the state government. We have presented a bill, which we hope to carry through the state legislature, establishing a board of engineers, the chairman of which shall be the chief engineer of our state university, and providing that no municipality shall be permitted to establish a sewerage system or a water system without having the sanction of this board. It is the purpose to get a bill passed, grouping these municipalities so that they will form a sanitary district of a type somewhat like that of the sanitary district about Chicago, creating a Calumet sanitary district, which will have as its object the installing of a sewage system, to cover the entire territory, and to install a water system to supply the entire territory, and until such legislation is carried on we are wasting our time and money.

"We are on the border of Lake Michigan, and have for some years been taking our water from Lake Michigan. It is not a matter of keeping the water pure, but of purifying it as we find it after we get it. We found that by extending our intake into Lake Michigan three or four thousand feet further, that we would get a good water supply. We will grant that it was a little better, but the various factors which helped to contaminate that are things which you cannot control. With us it was the dumping of scows, bearing a sewage mass, within a thousand feet of our intake, and this in defiance of a federal law passed not long ago. So the only thing for these little municipalities along these smaller lakes and rivers to do, to obtain a pure water supply from a river, is to purify the water as they find it, and that, of course, is, as we now recognize, probably accomplished by hypochlorides, and perhaps before that using an economical

Digitized by Google

filter station. Therefore, it is not a question so much of preserving the purity of the water as it is a question of purifying it as we find it, and doing that at once. Irrespective of the sewage, irrespective of what is going to be done with the sewage, irrespective of the purity of the water, the first thing and the only thing now, not two years from now, or five years from now, is to purify the water as we find it."

The conference voted it to be the sense of the body that groups of towns, similarly situated on polluted waters, should form water and sewage districts.

Organization of Great Lakes International Pure Water Association

The conference received and adopted the report of the aforesaid special committee appointed to propose an organization, for water protection purposes, of related communities on the Great Lakes:

"The name suggested and accepted by the committee tentatively is The Great Lakes International Pure Water Association. This association shall consist of two types of members—official members and non-official members. Official members to be appointed as follows: One from each state or province touching the Great Lakes or the St. Lawrence river. These representatives to be designated by the governor of the state or premier of the province. A representative from each municipality located on the lakes. Any municipality located on the lakes may send delegates, these delegates to be designated by the municipal government. One representative from the war department of the United States corps of engineers. One representative from th public health and marine hospital service of the United States. One representative from the engineering corps of the Canadian war department. One representative from the public health service of Canada.

"Non-official members are to be admitted. Any person taking sufficient interest in this movement may be admitted as a non-official member.

"The official members in attendance shall constitute the executive council.

"Recommendation is made that officers be elected as follows: President, vice-president, secretary-treasurer, one officer, and editor. These, with one other official member, to constitute the executive committee. Further details are left to the executive committee, which shall appoint such sub-committees as are necessary. Time and place of meeting to be determined by the executive committee.

"There are no annual dues. We felt that we were getting into details that should be left to a committee, probably a committee on constitution and by-laws, but it has been suggested in the committee that a fee of ten dollars be charged each member of the executive council—that is, each official member of the association in attendance at the meetings. It is also suggested that the non-official members pay a fee of perhaps two dollars. However, those are details that can be settled by the committee on by-laws much better than by this temporary committee."

The following officers were then elected by the meeting:

President—Dr. C. E. Ford, Cleveland, Ohio.

Vice-President—Dr. Charles J. Hastings, Toronto, Ont.

Secretary—Prof. Edward Bartow, University of Illinois.

Editor—Dr. W. A. Evans, Chicago.

Roger J. Perkins, Cleveland, member of executive committee.

The meeting extended overtures of co-operation to the Lake Michigan Water commission.

Location of Intakes

Discussing the question of the need of a uniform policy in the location of water intakes, Langdon Pearse, of Chicago, said: "The municipalities around the Great Lakes with the exception possibly of Chicago, which now diverts its sewage from the lake, are in a position usually where they must discharge their sewage into the lake from which they take their water supply, and it is a question largely of engineering and sanitary experts to fix the amount of purification which shall be made of the sewage, and the purification of the water supply. In most cases it is cheaper to purify the water than it is to purify the sewage. For that reason it may be good policy for many of the smaller towns to take their water from the lake and purify it without treating the sewage. On the other hand, as these cities grow and it becomes impossible to move their intakes far from the discharge of sewage, that water should be treated in the first place, and then later the sewage treated as occasion demands.

"The intake in relation to a discharge of sewage is a very uncertain proposition. The records of the Great Lakes show in many cases some towns that had a remarkably low typhoid fever death rate, where the greatest pollution was going in within a few miles of the water intake; but I can show you from the same records that at certain times pollution does reach the intake and will cause serious epidemics, and the extension of the intake in many cases is simply temporizing with the problem. The municipality, unfortunately, in this country does not in its extension of such matters keep pace with

Digitized by Google

the pollution, and therefore it seems to me good engineering policy to filter such water and remove all chance for extension of disease."

Said A. F. Macallum, of Hamilton, Ont.: "The extension of intake pipes into the lake does not always necessarily mean that you will get better water. In Toronto recently experiments were made by taking water every half mile out for five miles, and the bacteriological count ran about 30, 30, 40, about five miles out ran up to 15,000, and beyond that again it went down to 30 or 40, showing that there were sections of water just like a cloud in the sky that went out there and caused pollution, so that the intake pipe is not altogether going to be a criterion where you are going to get the purity of your water."

Said Dr. Weiss: "In Indiana we found this fact to exist: Water examined at one mile out gave a bacterial count of 6,000; at two miles out 8,500. In other words, our intake being out about one mile got a rather bad water supply. That same intake extended into the lake one mile further got almost twice as bad a water supply as it did in the original position, illustrating the point that it is impossible to have a uniform distance for intakes. The river current, everything that may enter the lake, the location of certain sewers emptying in in relation to the intake, all must be taken into consideration, and it would be impossible, therefore, under any circumstances to establish a uniform distance for intake location."

Water Supply and Sewage Disposal in New York State

Said Theodore Horton, chief engineer of the New York state department of health: "Our state department of health, through its engineering division which I represent, has at one time or another during the last five years, during only which time it may be said that an engineering division has existed, made special investigations of the water supplies and sewage disposal of practically all of the larger municipalities bordering upon our Great Lakes and the St. Lawrence river, and there has been a striking similarity in the history of each. Our investigations have covered the municipalities from Dunkirk eastward, including Lackawanna, Buffalo, Tonawanda, Lockport, Niagara Falls, Rochester, Oswego and villages along the St. Lawrence river as far as the city of Ogdensburg.

"In the case of nearly all of these municipalities they have taken their water supplies from the lakes and discharged their sewage either directly or indirectly into them. In every case with one or two exceptions the history of typhoid prevalence has been the same. In other words, every time we have investigated one of these municipalities we have found it suffering from an excessive prevalence of typhoid fever, or an epidemic of typhoid fever, or else it is just recovering from it after extending its intake further out into the lake, filtering the supply, or securing an entirely new and unpolluted supply. The notable exception is in the case of Rochester, which disposes of its sewage into the lake waters, but takes its water supply from an inland stream, and this exception stands out in dramatic relief against the background of sad experiences of its neighboring municipalities along these lakes insofar as its typhoid fever mortality is one of the lowest in the state.

"It hardly seems necessary to go into detail concerning the causes of the excessive prevalence of typhoid fever in these municipalities, for the experience in our state has been the same as with the rest of the municipalities on the Great Lakes system which take their water supplies from the body of water into which they discharge their sewage. In fact, I know of no more striking and far-reaching illustration of the germ theory of transmission of disease by sewage pollution than the typhoid fever histories of these municipalities with respect to their water supply intakes and points of discharge of sewage.

The Problem of the Lake Cities

"The solution of this problem of health protection among the lake cities in my opinion rests in a correct perspective of the functions and results obtained by water purification on the one hand and by sewage purification on the other, with due regard to the question of economics. It must be generally conceded that, so long as sewage is discharged at the shore or near the shore or into some stream which discharges into the lakes, an intake placed within a radius of a few miles must under certain unfavorable conditions be subject to pollution. The question of pollution involves three principal factors: first, the population or quantity of sewage; second, the factor of dilution and sedimentation; and, third, the factor of currents produced by the winds or a stream entering the lake.

"Sewage purification will lessen the dangers to an intake located some distance from shore during most of the year, but it is very questionable whether in any case pollution from other causes would leave the water at this intake sufficiently pure to make water purification unnecessary. As a corollary it would follow that the most useful function of sewage purification would be to keep in a sanitary condition the water

Digitized by Google

near the shore, protecting when necessary fishing and bathing, and preventing any nuisances. It must be conceded, however, that with an intake not far from sewer outlets sewage disposal would have a more important function and actually be a requisite to maintaining the purity of the supply even if filtered. An exaggerated opinion should not, however, be had of the value or the necessity of sewage purification in all cases, for we have only to point to the city of Albany, capital of our state, which by slow sand filtration is able to take the Hudson river water, polluted a few miles above by the sewage, at times approximately in the ratio of 1 to 100, and purify it sufficient to meet all the demands of public health.

Local Conditions Impose Local Methods

"The question in any particular case must be largely one of local conditions and local study. The desideratum in all cases, it seems to me, is to so locate the intake as to be least subject to pollution of not only sewage but other sources of contamination such as navigation, and to keep this intake at such a safe distance from shore and sewage outlets as will give a good factor of safety in producing a pure water after its filtration. In other words, I believe that filtration should be practiced in every case, since I do not believe that in ordinary practice an intake can be economically located opposite a municipality discharging sewage at the same time into the lake to give a perfectly pure supply at all times of the year.

"Parallel with these requirements with regard to intake location and water purification must of course go our requirements for sewage disposal. The outlet should be located away from the shore front and at a reasonable distance from shore. The degree of sewage purification would in all cases involve at least clarification, sometimes sterilization of it, and, depending on topography and other local conditions, an organic purification.

Water Purification and Sewage Purification

"Summed up briefly, my views are that our first attention should be to the water supply; that this should in nearly every instance involve purification; that the intake should be located with reference to securing a water of satisfactory aesthetic quality. If this is done I believe that with satisfactory purification of the water a high degree of purification of the sewage is unnecessary.

"From the sewage standpoint I am of the opinion that, with the water supply protected by filtration, the treatment should be best adapted to general local sanitary requirements, such as prevention of nuisance or deposits of sludge, danger to fishing, boating and bathing and other local requirements of an aesthetic and hygienic nature. I think it would rarely be necessary, with outfalls suitably located, to require at the outset a high degree of organic purification. Usually clarification in itself or coupled with disinfection would answer ordinary requirements, remembering always that the water supply is being protected by other means. The time must inevitably come, however, when water intakes and possibly also sewer outfalls will have to be extended further into the lake, and coupled with it may also be required a higher degree of purification of sewage. In fact, these are among the important questions which in my opinion should be studied and determined by state authorities, and I believe that the policy along the line just outlined represents a rational one according to our present knowledge of sanitary science."

Said Dr. Smith: "It would seem to me that we are all agreed on the one proposition that the Almighty never made us so low that we can use the same stream for a drinking supply and a water closet. That is what we have been trying to do. I like what has been said about purifying water, but it seems to me we ought to deal with this thing logically, and the first thing we ought to learn is to keep our sewage out of large rivers and the Great Lakes system. In other words, let us not go to work and destroy what the Almighty has given us in the way of a pure supply of water, and then attempt to cure it by some little subterfuges in order to remove what we have put in there.

An International Agreement Proposed

"This meeting ought to ask the governments of the United States and Canada to join in an international agreement to forever prohibit any city putting its unpurified sewage into this Great Lakes chain of water anywhere; and it ought to be determined a crime for a boat to put its sewage into this chain of water. They can run a pipe and put it into their furnaces and burn it up, and they ought not to be allowed to pollute the water supply and let us take chances in any way of getting some of that into our drinking water."

Said Dr. Evans: "I move that the chairman of this meeting communicate to the national governments of this country and of Canada, that it is the opinion of this

Digitized by Google

meeting that there should be international action to prevent cities located on the Great Lakes from putting their untreated sewage into the water of the lakes; and, second, that these governments should institute proper procedures for the control of the shipping on the lakes, to the end that the vessel making use of the lakes should make proper provision for sewage disposal."

Said Dr. Charles J. Hastings, medical health officer of Toronto, Canada: "I have very much pleasure in seconding that motion. It might possibly be of some interest to the gentlemen here to know that a bill for the non-pollution of navigable waters has already passed the senate of the Canadian government, and will be brought before the commons probably at its next session. I presented a report to the local board of health in Toronto, and they unanimously endorsed it, endorsing the action taken by the senate and endorsing the measures as set forth in that bill. That bill is very broad insofar as it includes rivers running into the lakes as well, and also prohibiting the contamination of the water by boats passing over it."

Action of Congress on Lake Pollution

The conference then adopted, by a vote of 15 to 12, the following declaration on the matter in question: "Be it resolved, that the chairman of this meeting be instructed to communicate to the proper government authorities of the United States and Canada, that it is the opinion of the health officers and other sanitarians here assembled, that no city should be allowed to pour untreated sewage into the waters of the great lakes, and that harmful trade waste should not be allowed to flow into the waters of the great lakes; and that boats plying the waters of the great lakes should be required to make proper provision for the disposal of their sewage."

The conference further discussed the pollution of lake water by vessels discharging sewage into it, and the possibilities of control by the federal public health service, a control, some authorities contend, for which there is not as yet sufficient and specifically assigned powers.

The conference rejected the following submitted by W. H. Smith, health officer of St. Clair, Mich.:

"Resolved, that the chairman and secretary of this conference convey to the United States and state governments the opinion of this body that steps should be taken to prevent by proper legislation the inland rivers or lakes of this country being polluted by being used by the cities or villages as places for the deposit of their unpurified sewage."

The conference rejected the foregoing seemingly on the ground that its proposals excluded the jurisdiction of the Great Lakes International Pure Water association.

Discussing the question of the study and control of typhoid fever, Dr. Perkins, of Cleveland said:

"A few years ago we had an enormous typhoid death rate in our city, and it was necessary to do something immediately to overcome it. We hit upon the plan of educating the people, securing the co-operation of the local newspapers, and we found that we were able to educate our people to what typhoid fever was, the causes of typhoid fever, the manner of prevention of typhoid fever, and the matter of caring for typhoid fever when we had it; and I think this one of the greatest things that we have accomplished in our department in the city of Cleveland."

George W. Fuller

At another session of the conference on protection of water and sewage disposal, Dr. Hastings, commissioner of health of Toronto, presiding, George W. Fuller, of New York, demonstrated with a steropticon vital statistics bearing upon the relation of public health to water pollution, and also showed working methods of purification. In this connection he said: "The whole question of sewage pollution and water supply is closely intermingled. It is a question in my opinion of working out the merits of the two questions, side by side, and determining which is the most feasible. In Europe it is almost the universal custom to provide for all surface water supplies frequent purification. As to sewage disposal, it is a question of eliminating a nuisance, and to see that streams are not so polluted that safe and reliable methods of water purification can not be made available at reasonable cost."

A. Marston

A. Marston, dean of engineering of Iowa Agricultural college, discussing "Sewage Disposal," said: "The broad principles which should govern in determining the proper method of sewage disposal to be adopted for any particular city may be laid down as follows: First, the method of sewage disposal should not be such as to cause material damage to property of any description; second, the method of sewage disposal should not be such as really and seriously to interfere with the comfort and convenience of the

Digitized by Google

public or of individuals; third, the method of sewage disposal should not be such as to cause material danger to the health of the public or of individuals; fourth, each city or individual is legally responsible to the fullest extent for all damages which any individual can prove to have been caused him by any violation of any of the three principles enumerated above, and individuals suffering from violation of the above principles have a remedy by injunction to prevent continuance of the injury. These are principles of law well established by many decisions.

"Fifth, however, the injuries to individuals must be real, and of such nature as can be demonstrated by legal evidence, before individuals injured will be entitled to injunctions or financial damages. Cities are not legally or morally bound to adopt expensive methods of sewage purification or disposal unless such methods are actually necessary to prevent real and material injury to individuals or the public. This also may be considered to be a principle of law well established by many decisions. Sixth, sewerage systems must be recognized as absolute necessities in modern cities, and sewage outlets as absolutely necessary adjuncts thereto. Cities are entitled to such use of natural drainage channels for the disposal of sewage as can be exercised with due regard to the five principles enumerated.

Municipal Responsibility in Sewage Disposal

"Giving general consideration to these six principles of sewage disposal, it must be apparent that each city has resting upon it both a legal and moral obligation to adopt a method of sewage disposal that will not cause any real and material injury to the public or to individuals. It must also be apparent, on the other hand, that it cannot be laid down as a general principle that every city is bound to adopt some expensive method of sewage purification. Any law undertaking to establish this principle as a rigid requirement for all cities would be unjust. The high standard, which it might be perfectly proper to require of a village located within the watershed furnishing the water supply of a great city, might be very unjust when applied to a sea-board city, which could discharge its sewage into the ocean without danger of causing a nuisance or injuring health.

"The most serious and evident damage to property will be due to the creation of a nuisance, markedly evident to the sense of sight and smell. As regards the effect of sewage disposal upon the comfort and convenience of a community, it may be said that much, if not most, of the injury in this particular is measured by the depreciation of property values already mentioned. With regard to the effect of sewage disposal upon health, it may be said that the most obvious effect, of course, is through pollution of drinking water. Too often engineers and others confine their attention to this one possible means of injury to the health of the community. They seem to believe that a foully polluted stream, even when flowing through a thickly settled city, is not a danger to health unless it is pumped into the water supply mains. Let anyone who has this impression stand by the banks of a foul stream within a city, and watch the children playing in the filth along the shores, and wading or bathing in its waters, and say, if he can, that they are not in constant danger of inoculation by disease germs. Let him observe swarms of our "typhoid flies" at work upon the decaying filth, afterwards flying away to houses in the vicinity. Let him give attention to the filth covered areas between high and low water marks, and inquire into the possible scattering of the dried dust, and of germs and their spores, by the wind. Let him even take a boat ride, and note the effort required to keep from touching his lips with wet hands. Finally, let him remember that each person who acquires a germ disease from a polluted body of water becomes himself a possible center of infection for some neighborhood, which may happen to be at a distance. I fail to see how any one who has given this matter careful consideration can fail to admit that a polluted stream or body of water in a city is a constant danger to the health of the community.

Avoidance of Nuisances

"It would be a wise policy to bring medical men of proper qualifications into consultation on sewage disposal questions. The sanitary engineer and medical authorities should work in close co-operation on engineering problems vital to health. The medical authorities should be able to say whether a certain actual condition is dangerous to health, and the sanitary engineer should be able to say how a condition dangerous to health can be remedied by engineering constructions.

"Any of the methods of sewage purification at present known are liable to create more or less of a nuisance in the immediate vicinity of the sewage purification plant. Hence, great care should be taken by engineers to avoid the creation of nuisances in dangerous places, by locating sewage purification plants very close to inhabited dwellings or valuable property. It is true that recent improvements have been made in sewage purification methods, which are claimed to obviate, to some extent, the produc-

Digitized by Google

tion of odors. I do not believe that we will be safe in acting upon the assumption that these improvements will prevent all danger of nuisance, at least not until the improvements have actually been tried out under the many varying sewage disposal conditions found in different cities.

"In the present state of sewage disposal knowledge, I believe that the engineer who locates a sewage purification plant within the heart of a city, or in a public park, or its immediate vicinity, is taking very grave risks, and that such location could only be justified on the ground of absolute impossibility in reaching other locations at reasonable cost. In case such a location is adopted, the city should count from the first upon the probability of having to pay just damages to nearby property owners.

"As regards the dangerous pollution of streams or other bodies of water, I believe that in selecting sewage outlets, and even in locating the outlets of sewage purification plants, especially those which discharge large numbers of germs in the effluents, every reasonable effort should be made to avoid locations immediately up-stream from thickly settled communities.

Dilution or Purification

"In selecting the proper method of sewage disposal to adopt in any particular case, choice must usually be made between two alternatives, first, disposal by dilution; second, the adoption of some method of sewage purification. The method by dilution has been the one hitherto commonly adopted, and is still used in the majority of cases. There has hitherto been too little scientific study of the possibilities of dilution. Our knowledge of the subject is still exceedingly imperfect, but we are coming to realize better than before the nature of the various mechanical, chemical, and biological agencies which effect purification of sewage when it is discharged into a body of water.

"The city which adopts the method of dilution for disposing of its sewage should understand that it has put into operation purification agencies for which it is responsible just as much as if it were to construct a sewage purification plant. There should be, in every case, a careful scientific study of the situation with a view to determining in advance, so far as possible, the degree of pollution of the stream, and the distance to which such pollution will extend. In all cases the creation of a nuisance should be avoided, and such measures taken as a result of the scientific study may show necessary to prevent the nuisance. When the discharge is into a lake, or the ocean, or a large river, careful studies should be made of the currents and winds. In studies of existing outlets, biological surveys will be of great value and interest.

"While our knowledge of the scientific principles involved in cases of disposal by dilution is still very imperfect, yet it is well established that a process of self-purification takes place in a body of water, when sewage is discharged into it, which will, in due course, restore the water to practically its normal condition, unless the agencies involved are taxed beyond their powers. The authorities of a city should understand in advance that it is fully responsible, legally and morally, for all changes from the natural condition of a stream, or other body of water, which the city produces by discharging its sewage therein.

Purification Processes

"All sewage purification methods used involve: first, a preliminary treatment; second, a final treatment. The preliminary treatment of sewage is almost universally effected by sewage tanks. The final treatment is effected by means of sewage filters. There are three general forms of sewage tanks, namely, sedimentation tanks, septic tanks, and two story, or Imhoff tanks. The septic tank and the Imhoff tank are patented, and cities should bear this in mind in adopting plans. The validity of the septic process patent is in dispute, and is now before the supreme court of the United States for adjudication. Imhoff tanks are just coming into use in the United States.

"The Septic Tank has been used extensively in the past in preference to the sedimentation tank, for the reason that it is capable of destroying a considerable portion of the sludge found in sewage, thereby saving part of the expense and trouble of sludge disposal. On the other hand, the septic tank has been found to develop objectionable odors in many cases, and to put the sewage itself into poor condition for securing the best results with sewage filters.

"It is claimed for the Imhoff tank that it does even better work in reducing expense and trouble with sludge than the septic tank, while at the same time it does away with the objectionable odors, and leaves the sewage in a fresh condition, so that it can readily be purified by filters. It is often proposed to adopt sewage tanks alone for the purification of sewage, without further treatment by filters. No claim is made by any good authority on sewage disposal that sewage tanks can effect more than a partial purification of sewage. Their principal object is to remove as much as possible of the sludge from the sewage before filtration, and to destroy as much of the sludge by bacterial agencies as practicable.

Digitized by Google

"The percolating filter is at present the type most in favor for large sewage purification plants. It has the great advantage of requiring a very small area as compared with other types of filters, and for a large city would almost certainly, at present, be the best type to adopt. A percolating filter is open to the objection that it discharges large numbers of germs in the effluent, and a considerable amount of organic matter. The organic matter, however, is in such stable condition as not seriously to be objectionable. In case the germs will cause a dangerous pollution, it is now possible to sterilize the effluents by treatment with hypo-chlorite. For villages and small cities, a percolating filter does not have nearly so many advantages as for the large city. The writer believes that engineers just at present are, in some cases, making mistakes by designing percolating filters for these small towns.

"The well known intermittent sand filter has many advantages for small plants, and in many, if not most cases, will be the most satisfactory type of sewage filter to adopt for the small town, whenever suitable sand is available at moderate cost. An intermittent sand filter properly operated will give a much purer effluent, both as to germ content and per cent of organic matter, than a percolating filter. The sand filter requires much less head for its operation, and thus may frequently obviate the necessity of pumping. Its operation is comparatively low in cost and simple in principle.

"As to the operation of sewage disposal plants experience has thoroughly demonstrated that it is extremely difficult to secure proper care for small purification plants, or even any care at all worthy of the name. A sewage purification plant will no more operate itself than a pumping station. If not properly operated, the plant will not only fail to do the work of purification, for which it was designed, but may even become a serious nuisance. Every small sewage purification plant should remain under the direction of the engineer who designed it for a period of many years, and the city authorities should plan from the first to expend each year a sum of money sufficient to operate it strictly in accordance with the directions of the engineer, and to maintain it in first class condition all the while."

Digitized by Google

Safeguarding the Central Reservoir

Organization of Great Lakes International Pure Water Association

The session of the municipal congress concerned with prevention of water pollution, its essential opinions and acts being herewith reported as above, because identified with the launching of the Great Lakes International Pure Water association, a movement originating in the manner shown by the report of the committee herein quoted, makes it appropriate that the birth of such an important public movement as the latter shall have due record in a report of the deliberation of a congress of kindred purposes, and therefore there herewith follows a report in full of the organization meeting of the Great Lakes International Pure Water association.

There were present:

Thos. S. Ainge, sanitary engineer, State Board of Health, Lansing, Mich.
J. W. Armstrong, 170 Broadway, New York, N. Y.
Edward Bartow, director Illinois State Water Survey, Urbana.
Frederic Bass, engineer, State Board of Health, Minneapolis, Minn.
Charles H. Bower, health officer, Council Bluffs, Ia.
J. A. Culbertson, acting delegate, Pasadena, Cal.
W. W. DeBerord, western editor, Engineering Record, Chicago.
Oscar Dowling, president State Board of Health, Shreeveport, La.
C. St. Clair Drake, Statistician, Chicago Health Department.
W. A. Evans, Chicago, Ill.
C. E. Ford, secretary Board of Health, Cleveland, O.
W. H. Fuchs, member Board of Health, St. Louis, Mo.
George W. Fuller, New York City, N. Y.
G. R. Geary, mayor, Toronto, Ont.
W. N. Goodson, Chicago.
Edward Goodwin, health officer, Bay City, Mich.
Chas. J. Hastings, medical health officer, Toronto, Ont.
Henry B. Hemenway, Evanston, Ill.
Theodore Horton, chief Engineer State Department of Health, Albany, N. Y.
Edw. V. Hugg, health officer, Lorain, Ohio.
H. E. Jordan, superintendent filtration department, Indianapolis Water Co., Indianapolis, Ind.
T. Victor Keene, health commissioner, Indianapolis, Ind.
Guy L. Kiefer, health officer, Detroit, Mich.
H. DeLamater, assistant health commissioner, Kansas City, Mo.
J. H. Landis, health officer, Cincinnati, O.
Aderman, N. Leclaine, Montreal, Canada.
A. F. Macallum, city engineer, Hamilton, Ont.
Allen McLaughlin, Surgeon U. S. M. H. & P. H. service, Washington, D. C.
P. G. McGill, health commissioner, Superior, Wis.
A. D. Melvin, chief, Bureau Animal Industry, Washington, D. C.
Wm. T. Miller, president, Ohio State Board of Health, Cleveland, O.
Alderman P. Monahan, Montreal.
C. M. Osborn, city engineer, Lorain, O.
W. E. Park, health commissioner, Rockford, Ill.
Otto Plutschow, Little Rock, Ark.
Langdon Pearse, assistant engineer in charge sewage disposal investigation, Sanitary District of Chicago.
Roger G. Perkins, Cleveland, O.
R. W. Pratt, chief engineer, Ohio State Building of Health, Columbus, O.
W. P. Shade, commissioner, Public Health and Safety, Decatur, Ill.
A. H. Seymour, secretary, State Department of Health, Albany, N. Y.
H. T. Sutton, member, State Board of Health, Zanesville, O.
M. Sherrard, city engineer, Newark, N. J.
W. H. Smith, health officer, St. Clair, Mich.
S. Szudrawski, health officer, Manistee, Mich.
Henry Wagner, consulting and sanitary engineer, Cincinnati, O.
Wm. D. Weiss, health commissioner, president Lake Michigan Sanitary association, Hammond, Ind.

Digitized by Google

The meeting was called to order by Dr. W. A. Evans of Chicago.

On nomination, Dr. C. E. Ford, secretary, board of health, Cleveland, O., was made temporary chairman.

The chair appointed Dr. Edward Bartow, director, Illinois State Water Survey, temporary secretary.

It was voted that the chair appoint a committee of five to consider permanent organization and the title. The chair appointed the following:

Dr. W. A. Evans, Chicago, chairman.

Dr. Charles J. Hastings, medical health officer, Toronto, Ont.

R. W. Pratt, chief engineer, Ohio State Board of Health.

Dr. Allen McLaughlin, surgeon, United States Marine Hospital and Public Health Service.

E. Fronzack, city health officer, Buffalo, N. Y.

During the absence of the committee topics suggested for the meeting of the section of the municipal congress on protection of water and disposal of sewage were considered.

The committee reported as follows:

"The name of this organization shall be 'The Great Lakes International Pure Water Association.'

"Members shall be of two types: (1) official; (2) non-official.

"Official members shall be those regularly designated by some state, province or municipality.

"A non-official member shall be any person interested in the purpose of the Association.

"The official members in attendance shall constitute the executive council.

"The officers shall be: President, vice-president, secretary-treasurer, and editor.

"These with one other (the retiring president if possible) shall constitute the executive committee.

"Further details are left to the executive committee, which shall appoint such subcommittees as are necessary.

THE ORGANIZATION.

"There shall be one official member from each state or province, touching the Great Lakes or the St. Lawrence river. This representative shall be designated by the governor or premier.

"There shall be one representative of the state or provincial department of health of each state or province touching the Great Lakes or St. Lawrence river.

"There shall be one representative of each municipality located on the Great Lakes or St. Lawrence river, for each 200,000 population or fraction thereof. The delegate may be designated by the municipality or the health department.

"One representative from the engineering division of the war department of the United States.

"One representative of the Public Health and Marine Hospital service, of the United States.

"One representative of the engineering division of the Canadian War Department.

"One representative of the Canadian Public Health service.

"There shall be no annual dues.

"The cost of attending the meeting should be borne by the appointing bodies. There shall be $10.00 for official delegates; $2.00 for other members for each meeting.

"Meetings shall be held at the call of the executive committee."

The report of the committee was adopted as a whole, and temporary officers elected as follows:

President, Dr. C. E. Ford, secretary, Board of Health, Cleveland, O.

Vice-President, Dr. Charles J. Hastings, medical health officer, Toronto.

Secretary-Treasurer, Dr. Edward Bartow, director Illinois State Water Survey.

Editor, Dr. W. A. Evans, Chicago.

Member of executive committee, Dr. Roger S. Perkins, of Cleveland, O.

It was voted that the Lake Michigan Water commission be invited to join with this organization.

Topics suggested in the call for this meeting were then considered.

It was voted that it is the sense of this organization that groups of towns on sewage polluted streams should form water and sewage districts.

The following resolution was adopted by those present:

Resolved, that the chairman of this meeting be instructed to communicate to the principal national authorities of the United States and Canada that it is the opinion of the health officers and other sanitarians here assembled that no city should be allowed to pour untreated sewage into the waters of the Great Lakes in any case where the water supply would be injured that harmful trade wastes should not be allowed to be brought into such waters, and that boats plying these waters should be required to make adequate provision for the disposal of their sewage."

Digitized by Google

At a meeting of the executive committee of the new association, held on the evening of the last day of the municipal congress, that is September 30, at the auditorium hotel, there were present: Dr. Ford, Dr. Perkins, Dr. Hastings, Dr. Bartow, and R. W. Pratt. Sub-committees were appointed as follows: On constitution and by-laws: Dr. Ford, Dr. Perkins and Dr. Bartow; on our special technical investigations, Dr. Perkins, Mr. Pratt, Mr. Amyot, Mr. Pearse; to compile existing laws: Mr. Horton, Mr. Bass, Mr. Geary, Mr. Fuller, Mr. Herty. The committee on uniform laboratory methods to be appointed later. The publicity committee was composed of the editor, with power to appoint additional members.

It was suggested that the cities interested would be found for Lake Erie in McLaughlin's report, entitled, "Sewage Pollution of International Lakes and Rivers, Bulletin 77, Hygienic Laboratory;" that Lake Huron would be treated in a second report by Dr. McLaughlin; that Lake Michigan would be found in the first report of Lake Michigan Water commission; and that Lake Superior must be compiled. Information about Ontario was uncertain.

Digitized by Google

Yard Sewage, Stables and Slaughter Houses

Discussion

The conference on hygiene and sanitation, Dr. Hastings, chairman, discussing "Yard Sewage, Stables and Slaughter Houses," acted on certain questions as herewith shown:

1. Should yard privies be allowed?
2. Should the vault or the box system be used?
3. Should removal be done at night or during the day?
4. Should the product be deposited in the sewers?
5. Should removal be done by the municipality?
6. What is a proper charge per cubic foot?
7. Should privies be licensed; should the cost of license cover the cost of cleaning; should the ordinance specify types of construction and demand a permit to build?
8. Should yard hoppers be allowed?
9. Should the government type of closet be required by law; should the government septic barrel be required by law?
10. Should stables be licensed?
11. Should stables have cement floors leading to sewers, or wood floors and absorbent coverings?
12. Should manure boxes be covered; should they be above ground; should ordinances specify the frequency of emptying and if so how frequent?
13. Should cow barns be licensed? What should the provisions require?
14. Should stable manure be collected by the municipality; should it be stored in the country; should it be burned; what price should it bring?
15. Should the municipality own the slaughter houses?
16. Should these be licensed?
17. Should all meat be inspected and tagged?
18. How can calf killing and poultry killing be controlled?
19. How should privy vaults be cleaned?
20. How should the use of yard privies for tenements be controlled when there is contagion in the quarters of a user?

The conference voted that the municipality should license slaughtering houses.

That privies should only be allowed outside of sewer districts, and that a permit for a privy should be required in all city ordinances.

That in unsewered towns and in the country districts the law should require the Stiles yard privy or something built on those lines.

That night soil should be removed in the day.

That privies should be licensed; that they should be cleaned by the municipality; that the cost of license should cover the cost of cleaning; that the ordinance should specify the type of construction.

That the cost of license should cover the cost of cleaning.

That stables should be licensed in cities.

That the city ordinance should require that manure boxes be covered; that they should be above ground; that the ordinance should specify that manure must be emptied at intervals of not less than one week, that the boxes be of impervious construction, and fly-proof.

That cows should not be kept in town except in places for which a license has been issued; that the license should specify the type of building, the location of the building with respect to residences, and a provision for sewage and the disposal of manure.

That all meats should be inspected either by the national or local government and should be properly marked.

That ordinances governing the killing of poultry should require that poultry killers shall take out a poultry killers' license, and that the license ordinance should specify the conditions under which poultry can be killed, with respect to the type of building and its relation to other uses.

That the remaining questions be referred to a special committee, and that this committee's report be issued as a part of these proceedings of the conference over the signatures of that committee as being the report of the committee, not, however, as adopted by the general body.

Digitized by Google

Conference Judgment on Specific Questions

The municipal congress committee appointed by the section considering yard sewage, stables and slaughter houses reported as follows: "Your committte to which was referred a list of questions, desires to answer them as follows:

"1. Should yard privies be allowed?

"Yard privies should not be allowed in districts provided with water and sewer facilities. In districts, however, where such facilities are not provided, yard privies should be allowed.

"2. Should the vault or the box system be used?

"Attention is directed to the government type known as the 'Stiles' type and fully described in Public Health Bulletin No. 37 (published by the United States Public Health and Marine Hospital Service), and which should be required. Another form of yard privy is the septic tank, a simple plan of which may be found in reprint of Public Health Report No. 54 (issued by the U. S. P. H. & H. S.). This type of closet, however, is still in its experimental stage, and has not the advantage of the first named.

"3. Should removal be done at night or during the day?

"Most decidedly, removal of contents should occur during the day (between sunrise and sunset). This will prevent abuses.

"4. Should the product be deposited in sewers?

"Where good sewers are provided with adequate water flow, provision should be made for the depositing of night soil into a sewer manhole convenient to a water hydrant, and water from the hydrant should flush through the night soil carrier and directly into the sewer, in quantity to sufficiently dilute the night soil to make it flow through the sewer, otherwise trouble of obstructed sewers is liable to occur. Furthermore, all foreign materials, such as bottles, tin cans, crockery, rags, etc., which are often thrown into privies, must not be deposited in sewers.

"5. Should removal be done by the municipality?

"This class of work should surely be done by the municipality, in cities at least. In country districts, the cleaning of privies must, of necessity, be done by the owner or occupants of the premises, and night soil should be buried deeply and covered with quicklime to insure quick destruction.

"6. What is the proper charge per cubic foot?

"This is a disputed question, the answer of which depends largely upon two factors, viz.: quantity of work to be done and the distance to be hauled. A charge of $3.00 a cubic yard, however, would not be an exorbitant one and yet produce a revenue to the municipality.

"7. Should privies be liecnsed: should the cost of license cover the cost of cleaning; should the ordinance specify types of construction and demand a permit to build?

"Licensing of privy vaults is not indicated. Cleaning, however, should be done by municipality and a sufficient charge made to cover the expense. Construction of privy vaults should be under the supervision of the municipality and only after procuring permit, the ordinance providing for same also to specify the type of privy.

"8. Should yard hoppers be allowed?

"Where there is danger of freezing, they should not be allowed. In warm climates, we see no objection, providing an ample water flush is available.

"9. Should the government type of closet be required by law; should the government septic barrel be required by law?

"See answer to No. 2.

"10. Should stables be licensed?

"Yes.

"11. Should stables have cement floors leading to sewers, or wood floors and absorbent coverings?

"All stables should be provided with flooring of cement or other impervious material, properly constructed and connected to sewer.

"12. Should manure boxes be covered; should they be above ground; should ordinance specify the frequency of empting and if so how frequent?

"Manure boxes should be covered, constructed of masonry and made water tight except a grated, properly trapped, connection to sewer, and should be sunk in the ground and provided with a proper ventilating shaft to carry off the effluvia without creating nuisance of odor. Ordinance should provide that box be cleaned before it becomes full to overflowing and that the cleaning shall be done to the bottom of box.

"13. Should cow barns be licensed? What should the provision require?

"Cow barns in cities should be licensed. Such barns should be of a construction to properly house the cattle, giving plenty of light and ventilation; floors of impervious material and provided with valley drains and properly connected to the sewer. Ordinance should prescribe the maximum number of animals to be kept on any premises. In order that municipalities may be kept as free as possible from rural conditions, we would propose that such an ordinance permit the keeping of one milk cow upon any

Digitized by Google

premises under one acre in extent and where the facilities are such as to preclude the possibility of a nusiance to neighbors, and that it also provide that for each additional acre of land in the plot, one additional cow may be kept thereon.

"14. Should stable manure be collected by the municipality; should it be stored in the country; should it be buried; what price should it bring?

"Stable manure should preferably be collected by the municipality, although there is room for some objection from the owners, as manure has a commercial value and it could not be confiscated. Therefore, collection by private collectors, under license and control of the municipality, might give as good, if not better, results. Manure may be stored under conditions and where it will not be a source of nuisance, until sufficient quantities accumulate for shipment to rural districts for fertilizing purposes. Manure should not be burned, as it gives off odor which is objectionable, besides it has commercial value. The price for the product is entirely governed by supply and demand.

"15. Should the municipality own the slaughter houses?

"Slaughter houses, in cities, should be owned by the municipality.

"16. Should they be licensed?

"Where not owned by the municipality, they should be under license.

"17. Should all meats be inspected and tagged?

"Cattle should be examined on the hoof, and all unfit tagged and sent to municipal or to municipal controlled slaughter house where postmortem examination is held and disposition made according to findings. The untagged should also be subject to postmortem inspection at the various slaughter houses. Individual or private slaughter should be confined to restricted districts to prevent nuisance and facilitate administration. The industry should be controlled by: First, municipal slaughtering and control of unfit and suspicious. Second, by postmortem examination of the 'fit' in private slaughtering establishments to preclude unfit being used.

"In smaller cities a municipal slaughter house or abbatoir should be maintained where all slaughtering should be done, because cost of supervision is too great in proportion to the few establishments maintained. It gives advantages to small dealers usually had only by the larger. It centralizes and controls. In large cities, the slaughtering industry should be the abbatoir system—numerous large ones, owned either by stock companies or individuals, but supervised and controlled by the municipality, in restricted districts. This system secures control and economy and prevents nuisance.

"18. How can calf killing and poultry killing be controlled?

"By centralizing or localizing the live stock, which makes inspection and elimination of the unfit feasible. Supervision of slaughtering completes the efficiency. Public abbatoirs for poultry are advocated.

"19. How should privy vaults be cleaned?

"By means of some odorless apparatus, preferably a suction pump which will empty the vault directly into proper tank wagons.

"20. How should the use of yard privies for tenements be controlled when there is contagion in the quarters of a user?

"Under no circumstances, should a member of a family, who comes in contact with a person suffering from contagion, be allowed to use the yard privy, in common with other tenants, but the nightsoil from such household should be in vessels thoroughly disinfected and deposited, by some other person, in the privy."

Slaughter Houses

A. D. Melvin

One of the topics of the conference discussing yard sewage was slaughter houses. On this subject Dr. A. D. Melvin, of the department of agriculture, said: "The administration of the federal meat inspection law applies only to establishments which are doing either some interstate or export business, so there is a great loophole left, and this is with reference to establishments which do strictly a local business, an intrastate or local business. I calculate that the federal government inspects about five-ninths of all the animals which are slaughtered in the United States for food. Of course, the balance, the four-ninths, are subject to municipal and state inspection. There are several cities in the United States which have municipal abattoirs, and quite a few more which have comprehensive systems of meat inspection. Unfortunately, however, there are very few that do have this complete systematic system of meat inspection.

"In the eastern states there are over 100 of these small slaughter houses scattered all about the city, and to carry on this inspection there are usually two or three and sometimes four inspectors. It is absolutely out of the question, it is a physical impossibility for those men to so divide their time as to inspect the animals that are slaughtered in those establishments. While they do some good as far as they can to go around, it is a grave question whether in the final analysis they do not do more harm

Digitized by Google

than good by giving a false security to people who might otherwise protect themselves. Ordinarily the people, the citizens, will believe that their meat supply is already inspected when as a matter of fact it is not, not because the individual inspectors do not try to do it but because it is a physical impossibility for them to do so.

Centralizing Plants

"That brings up the question of centralizing this slaughter so that it can be inspected—the animals can be inspected at a reasonable expense. It seems to me the only way in which this can be done, especially in these large cities, and even in small towns is to concentrate the several places in one modern slaughter house accessible to the city, where it could be under the constant supervision of the health board. In Philadelphia one of the finest packing houses in the United States is right in the heart of the city. You would not know it unless you went inside of the walls and saw what they were doing, so that a smelling packing house is not a necessity. As a matter of fact, with the modern packing house, the only smell you get is from the tankage, the offal in the animal department of the establishment.

"Dr. Evans has handed me a letter from the Mayor of Paris, Texas. I have quoted this establishment quite extensively, as showing what can be done by a small city in the way of a municipal slaughter house. They went to work and built their own slaughter house. It is not only a slaughter house, but it is a refrigerator, where the butchers can put their meats until they want to sell them, or even other products, if they desire to store them there. This house is not of any fancy construction whatever. The floors are cement, they have got proper tanks there to dispose of the offal, and the structure, I think, is frame, at least the slaughtering part. Possibly the other is brick. The whole thing cost $10,000 and pays a small profit.

Federal Inspection

"In the federal service, inspection is very rigid. Our men as a rule are very competent and industrious in their business. Men, however, who have animals that they know are liable to be condemned, are not going to send them to points where they have United States inspection, and where do they send them? They send them and dispose of them where there is no inspection, and I bring out this thought to show the great need of having municipal inspection and state inspection in all cities. This inspection should be a veterinary inspection, because these men are trained in animal diseases. In some of the small towns, probably, you would not find a veterinarian, but in those instances probably some physician would be there who would take this as a side issue; but at any rate it should be a medical inspection. I have brought with me blue prints of an establishment which we have prepared and sent to a good many cities for a municipal abattoir, and the department of agriculture will furnish others on application.

Charles B. Ball

In connection with the discussion of yard sewage Mr. Charles B. Ball, chief of bureau of sanitation of city of Chicago, said: "In the matter of the use of yard privies no mention has been made of the possibility of individual septic installation. It is quite possible at the present time at really a very small expense to provide for isolated situations small septic installations. It has been done in a very great many cases now. One concern in Chicago that has devoted special attention to this now has some 900 installations of that kind, and while it might not be practicable for the very cheapest class of houses, it would be practicable for a great many situations."

Digitized by Google

Law in Relation to Health Work

Common Law and Statue Law Principles

Orrin N. Carter, Chief Justice, State of Illinois

Said Judge Carter, discussing "The Law in Relation to Health Work:" "Few people can live as they choose, regardless of their duties to others or the rights of their fellow men. In the great cities, the necessity for sanitary laws is far greater than in the rural districts. The individual, acting alone, can do very little towards enforcing such laws. He is practically helpless. It is just as essential that the public authorities, representing all the people, should formulate and enforce such laws as that they should formulate and enforce laws protecting the liberty and property of the citizens. True, some great thinkers and writers, such as Humboldt and John Stuart Mill, have denied the right of the state to improve directly public health on the ground that such interference would do more harm than good. It will not do to say that sanitary regulations only tend indirectly to support health or life, and therefore are too remote for the state to take cognizance of.

"In my judgment, the laws in relation to health are not only similar to those controlling capital or property, but in a sense health is capital itself, and its protection may be based on the same fundamental principles as govern the protection of capital. The federal government, until recently, has attempted to do little with reference to sanitary laws. Each state has its own board of health, whose duties are usually regulated by statute, but as most regulations must necessarily have special reference to conditions in the cities, municipal corporations are generally responsible for the enforcement of sanitary laws.

The Legal Golden Rule

"In communities where there are no state regulations or municipal ordinances, only the common law is in force. This may be summed up in the regulations controlling nuisances. One maxim, called the legal golden rule, perhaps more than any other, epitomizes the law on this subject: **sic utere tuo ut alienum non laedas**—so use your own property as not to injure your neighbor's. Formerly there was a conflict of decisions as to whether the owner of land could use it not to benefit himself, but to injure his neighbor, such as sinking a well, not to get water for himself, but to drain his neighbor's spring, or the erection of a 'spite fence.' Now, however, these acts are generally held wrongful. In recent cases as to gas and oil wells, the reckless waste of oil and gas without benefit to the waster has been restrained. In one of the early cases it was held a person had a right to shoot on his own ground if he had any real occasion so to do, but to shoot on purpose to injure another was a different thing and wrong. Neither in morals nor in law is a person justified in regulating his acts or using his own property solely for the purpose of injuring another, inflicting harm for mere harm's sake.

"The laws relating to health are based largely on the police power that resides in all governmental authority. The police power has been defined as that inherent plenary power in the state which permits it to prohibit all things hurtful to the comfort, welfare and safety of society, but it has its limits. It must not conflict with either the federal or state constitution. It must have some relation to and be adapted to the end sought to be accomplished. The rights of persons or property will not be permitted to be invaded under the guise of the 'police power.'

Duties of Municipal Boards

"The duties of municipal boards of health, however, are usually set out in greater detail in legislative enactments than are those of state boards. The rule is generally recognized that within certain limits boards of health, both state and local, may be invested by the legislature with the power of making rules and regulations for the protection of the public health, but the extent to which this power may be so delegated by the legislative authority is a subject of difficulty. The power attempted to be conferred is sometimes held to be unconstitutional. The courts are more inclined to uphold a delegation of power to the legislative department of a municipal government than to state or local boards of health. When powers have been delegated by the legislature to a municipal corporation to adopt and enforce ordinances for the protection of the public welfare, morals or safety, the courts will look into the reasonableness of such ordinances, to see whether they are within the power granted, on the theory that the legislature did not intend to give the municipality power to enforce oppressive or unreasonable measures. The law is well established that the state legis-

Digitized by Google

lature can delegate legislative authority incident to municipal government to cities, towns and villages, but this can only be done by a general law, uniform in its operation. On account of the difficulty in laying down definite and specific rules by the legislative authority of the state or municipality, it is quite common to invest boards of health with large, if not extremely arbitrary, powers. Regulations of local and state boards of health are often decided to be unconstitutional because of their arbitrary or summary character. The courts do not sanction law which invests any board or body of officials with power which is purely arbitrary and which may be exercised in the interests of a favored few. The smaller the town, the more likely the authorities are to be unreasonably arbitrary. That may seem startling, but that is true.

Qualifications of Power to Health Boards

"Neither will the courts sanction the granting to such boards power to deprive a person of liberty or property without due process of law. By that is meant a due course of legal proceedings according to forms which have been established to secure the individual from the arbitrary exercise of the powers of government unrestrained by the established principles of private rights. That rule obtains very much more strongly in this country than it does in Great Britain or Canada, where they do not have a written constitution, but even there in large measure, the courts enforce the same rule. Courts do not sanction granting to municipal health bodies or state health bodies the making of a law entirely and saying whether this thing shall be unlawful or lawful, but they do sanction in a very large measure giving them the power when that law shall be executed and carried out, whether they shall give five days notice or ten days notice, or whether they shall do it in this or that or the other way. That is a fundamental principle that is practically laid down by all of the state courts and the United States courts. In times of emergency, such as during the prevalence of an epidemic, or when a fire is raging, municipal authorities will be upheld in exercising arbitrary powers when they would not under ordinary circumstances; that is, under the doctrine of 'overruling necessity,' they are permitted to stamp out the epidemic by arbitrary measures, or destroy or tear down buildings in the pathway of the flames.

"Now I want to give you a few general principles within which all rules as to sanitary laws must be limited, and within the boundaries of which it is quite an easy thing to lay down general principles, although it is a very difficult thing to apply those principles to the various facts as they come up, either in law or in the execution of the law. I am aware that public officials in charge of the sanitary laws often think that the courts do not understand the necessities of the situation or they would sanction summary health measures, even though there was no epidemic as that term is understood. Doubtless many times the measure proposed by the health authorities that are declared invalid by the courts might promote health, but the evils arising from carrying out such measures arbitrarily, without due sanction of legislative enactments would, in my judgment, very frequently do more harm in other ways than the good they would do in promoting health.

The Health Officer a Diplomat

"If there is any one who needs to be a born diplomat it is the health officer in any municipality charged with enforcing sanitary laws. He must act as the agent between the public and the city administration. His functions are often those of a conciliator more than an executive. In enforcing the rules and regulations with reference to health he must endeavor to calm down the animosities that are continually arising and decide in such a wise manner as to satisfy the demands of the law as well as the reasonable objections of its opponents. He should frown upon all vexations, litigious proceedings; all baseless or mischievous complaints; all exaggerated views of public sanitary questions; all fancies of visionary alarmists or sensational agitators. In a word, he must be the most sane man in the municipal government.

"A little study of the sanitary laws of the ancient, mediæval and modern city will compel the conclusion that we have still much to learn before we have an ideal city. It is doubtful whether we can ever get ideal conditions in a city the size of Chicago, New York, Paris or London. One of the leading writers and thinkers on this subject, Frederick Harrison, argues that the best type of city should not exceed a quarter of a million in population; that the essential thing in a city is the power and variety that arises from the association of a very large body of organized families living a common life and combining for social ends; that when the number in a city exceeds a million the result is monotony rather than variety, and disorganization rather than association. What we need now more than laws for providing pure air, plenty of water and all the light needed, public play grounds open to all the children, parks accessible to all citizens, is an educated public opinion that believes in these things. With such a public sentiment the laws will soon come. Without these ideals in the minds of the people, laws requiring such things amount to nothing. Ideas, or ideals, not men, rule the world.

Digitized by Google

Disposal of Garbage

Discussion

The congress discussing "Disposal of Garbage," had before it fourteen questions which had previously been given circulation among experts. These questions were subsequently passed upon by a special committee. In the debate on the floor of the congress, Dr. Gottfried Koehler, assistant health commissioner of Chicago presiding, the speakers were Dr. A. F. Storke, of Oak Park, Ill., a Chicago suburb; Dr. Samuel Greeley, of Milwaukee; Dr. Weiss, of Hammond, Ind.; Dr. W. E. Park, of Rockford; Dr. McGill, of Superior, Wis.; Dr. Delamater, of Kansas City; Dr. Fuchs, of St. Louis; Dr. Koehler, of Chicago; Mrs. Nichols, of Woman's City Club of Chicago; Dr. Hastings, of Toronto.

Said Dr. Storke, of Oak Park, a purely residential suburb of high class: "Up until 1909 the garbage of a population of 20,000, was hauled out into the country and buried. For a great many reasons this was unsatisfactory. In 1909 an eight-furnace incinerator was constructed, capable of handling fifty tons of garbage a day. We put that in the geographical center of the town. We put up an eight-furnace incinerator last year. We are having trouble chiefly because we get too little refuse. There is almost no refuse brought to the crematory. We urge housholders to wrap their garbage in paper. This not only adds more inflammatory matter to the garbage, but it also necessitates their draining it, and so we got less water. The fact that we have more inflammable matter with the garbage, that the stack has been carried higher than originally built, possibly more than anything else, that the men are better fitted and know better how to go at the thing now than they did before, has worked wonders. In 1911 so far I have known of but two complaints about odor. As to waste heat, we have never done anything as yet for its utilization."

Milwaukee's Garbage Destructor

Said Dr. Greeley: "The Milwaukee refuse incinerator is a plant designed to burn mixed refuse. The conditions at Milwaukee are perhaps unique in regard to the quality of refuse which the plant is burning. The plant is designed to handle 300 tons of mixed refuse in 24 hours, that is, refuse made up of a certain amount of garbage, ashes, rubbish and manure, the ashes being enough to promote combustibility. The furnace is connected with a boiler of 200 horse power capacity and the steam operates a 500 kilowatt turbine generator. It is necessary in Milwaukee to burn the garbage from the whole city. The city, on the other hand, did not have funds to build an incinerator to handle the rubbish and cinders for the whole city. Therefore it was determined to burn the garbage and only enough ashes and rubbish to make a combustible mixture. We have found a mixture of 60 per cent of garbage and 40 per cent of ashes and rubbish would burn at a temperature above 1200. Of course, we do not get the high temperature we would have if we had 40 per cent garbage and 60 per cent ashes and rubbish. It has been in operation a little over a year and the cost of operation has varied from 86 cents to $1.05 per ton.

"There is one thing I would like to say in regard to Milwaukee's experience. We have had two or three complaints from the operation of the incinerator. Also we get five or ten or perhaps fifteen complaints a day as to the collections. It seems to me that is a very significant fact. We ought to realize that the beginning of this whole problem comes in the collection and the collection as it affects the people who are being served. I found in all the European cities I have visited that they collect at least three times a week, and in Cologne and Paris they collect every day all through the city. Furthermore, the most smelly part of the Milwaukee collection system is the wagons. The wagons in which the garbage is collected are washed twice a week and even with that they make the greatest smell of any part of the system, so much so that the department had to make their collections at night in order to keep the smell off the streets during the day time. Mixed refuse does not seem to soil the wagons as much as raw garbage, and it seems to me that is one way in which the collection service can be bettered.

"Another thing, we find there are quantities of flies in the garbage that comes to our incinerator. Frequently we are able to burn them up before the maggots develop. Whether that is true in all cases or not I am unable to say. I looked particularly at all the mixed garbage in the German cities and I was unable to discover any maggots, and I was told they had no trouble on that score at all. I found that they washed the

Digitized by Google

wagons practically every day and they are almost universally iron wagons holding from two and a half to five yards, with covers so arranged that the tops shut automatically after the driver has emptied the can into the wagon."

Operation of Milwaukee Plant

Dr. Greeley was asked: "Where you burn mixed refuse does it require a certain form of grate?" He replied:

"My observation of plants which burn garbage along with coal is that they first have a grate on which the garbage dries and the gases pass through the garbage, the heat being underneath. In that way the garbage dries. There in Milwaukee we use a draft in which the garbage material is stoked down and the gases pass through that and in that way it is oxidized directly on the grate. In Milwaukee we have to take great precautions to get the forced draft going and thoroughly saturate and permeate the garbage or we will not get the carbon thoroughly oxidized. I should say that for small quantities of ash, as long as you do not exceed the rate of combustion on the final grate, you would not have any trouble if you had a sufficient forced draft blowing through, but you could not do anything with the combustion of ashes on solid grates. The total cost of the Milwaukee plant, including land, engineering, inspection, installation and everything, was $212,000. It has a rated capacity of 300 tons per day, and therefore the cost per ton is practically $700. A smaller plant would cost considerably more. The population of Milwaukee is 375,000. We do not handle the refuse from the whole city of Milwaukee; we do handle garbage from the whole city and but a certain proportion of ashes and rubbish. That would make it about 55 cents per ton per capita."

Procedure in Kansas City

Said Dr. DeLamater, of Kansas City: "There are two cities in the United States, I believe, that have the cheapest garbage contracts in the country. One is Denver and the other Kansas City, Mo. The garbage collected in both these cities is by private contract and is fed to hogs. The contract in Kansas City calls for $49,000 with a population of 300,000. The contract in Denver, calls for one dollar. In other words, if you desire to enter into a contract to haul the garbage in Denver, you go to the health commissioner and deposit one dollar with a contract that you will conform to the rules and regulations adopted by the health department. The garbage is carted several miles from the city and is fed to hogs. The garbage is treated by an antiseptic before it is fed to the hogs in Denver. That is not so in Kansas City. We have about forty-two wagons of the steel tank variety holding about four cubic yards and they are transported twelve miles where they are fed to between eight and ten thousand hogs. The ordinance says that the garbage must be collected three times a week from the first of May until the first of November; and twice a week from November until the first of May. We get on an average between forty and sixty complaints a day, depending, of course, upon the season of the year. In the summer time we will run from sixty to seventy-eight and eighty complaints. The contract with the contractor states that he shall not cart garbage away from any place that is conducted for profit. In other words, he does not have to take it from hotels, boarding houses or restaurants. I am delighted to say that those places are the best collected places in the city.

"We never have any trouble with the private contracts on those places. The garbage from a good many of those restaurants, hotels and boarding houses is sent over on to the Kansas side where there are a number of hog farms. If you could see the class of garbage that is collected and fed to hogs I do not think you would eat much hog meat. I do not. We are a packing center and so is Chicago, but I pass up hog meat, and any sensible sane person would do the same thing if they could see the stuff that is fed to hogs, no matter whether it is treated by an antiseptic or otherwise.

"The city of Kansas City has investigated several of the incinerating plants and also what you may have up for discussion here, the reduction plants. We have discussed that in Kansas City pro and con. We have bonds voted by the people for $100,000 to put up an incinerating plant. That will not cover the cost of a plant for Kansas City; first, because the topography of Kansas City is rolling, and with some fifty-seven square miles of area the city would have to have two or three plants, for the cost of garbage disposal is largely in the hauling.

Garbage Disposal as Municipal Problem

Said Dr. Fuchs, of St. Louis: "Unlike Dr. Delamater, if we are going to stop eating hog meat produced by the consumption of garbage, I do not see why he does not stop eating vegetables produced by fertilizer. However private firms may offer to construct incinerating plants, I think garbage reduction and disposal is purely and

Digitized by Google

absolutely a municipal problem and ought not to be left in private hands any more than the general health work should be placed in private hands. The municipality ought to begin with the collection of garbage and it has a right to dictate what shall be the provisions for offering garbage to the city at the alley entrance to the house or any other point which may be designated. The difficulty we are having, however, is compelling householders to provide the proper receptacles and put their garbage where it ought to be placed. The individual householder ought to be responsible for a proper disposal of garbage in proper receptacles and in a proper place. In the second place, the municipality ought to provide for the proper collection of that garbage in proper receptacles and at a proper place; and in the third place, the municipality ought to provide a method for incinerating that garbage without constituting a nuisance to the surrounding territory or foisting it upon any laboring community."

Chicago's Private Reduction Works

Chairman Koehler, assistant commissioner of health of Chicago, describing the Chicago method of garbage disposal said: "In Chicago garbage disposal is not under the jurisdiction of the department of health. The bureau of streets in the department of public works has charge of our garbage disposal. Now, first, in regard to the question of the collection of garbage. We have a clean city ordinance which requires, among other things, that householders must provide receptacles for garbage and refuse, and that garbage and refuse must be separated. The department of public works through its bureau of streets removes the garbage only from the private households. It does not remove it from any house in which there are more than twenty fed daily. That is aimed at the rooming houses, hotels, saloons, restaurants, stores, and so forth. The garbage from those places is removed by private scavengers who are licensed and controlled by the department of public works.

"As to the removal system, the city has covered metallic boxes of probably not more than a cubic yard capacity and maintains garbage wagons and refuse wagons. The number of removals varies in the different wards. When the budget is made up each year a certain amount of money is set aside for garbage removal in the various wards. In the smaller wards and in those wards where the population is more concentrated we have garbage removals sometimes once a day, but usually the garbage is removed but three times a week. In the larger wards, like the 27th, which is nearly six miles square, we get garbage removal about once a week. The amount of money expended in these wards does not vary very much. The city scavengers haul these boxes to so-called loading stations which, at all points distant from the reduction plant, are located on the Chicago river and its branches. At these loading stations the metallic boxes are taken from the wagon and piled up and at night, or possibly in the evening, a scow goes up and down the river and these boxes are loaded on the scow and taken to the reduction plant which is located on the south branch of the river near the stock yards at 39th and Iron streets.

"In the South Chicago district this method of removal is not followed for the reason that the river does not extend into that territory, and I am sorry to say that in that district quite a bit of garbage even at the present time is placed on dumps in so-called swamps in that neighborhood. The method of removal by private scavengers is variable and has been more or less unsatisfactory. During the last three or four years the health department has dealt very severely with the private scavenger. We have insisted upon sanitary receptacles, and we have succeeded in getting a goodly amount of separation of the material taken from industrial establishments and places of business. Up until three or four years ago it was the custom to dump nearly all of this material from the industrial establishments and places of business in the so-called dumps.

A Reduction Company Paid to Take Garbage

"The method of disposal that we have is this: The city has a contract with the Chicago Reduction company, which provides that the Chicago Reduction company shall receive the garbage delivered to it by the city of Chicago provided it is 95 per cent pure garbage; also all animal matter, dead animals and condemned meats. This contract has been running for four or five years and was renewed three years ago for another period of five years. The Chicago Reduction company is paid $47,500 per year to receive the garbage and dispose of it in a sanitary manner. The garbage is all delivered to the reduction company at the expense of the city. The private scavengers have recently been ordered to deliver all of their garbage to the Chicago Reduction company, and this company is glad to receive it.. In most instances now it is almost pure garbage.

"Two years ago a careful study of this reduction plant was made by two young men from the University of Chicago who were working under a fund placed at their disposal by the Russell Sage foundation. They made quite an exhaustive report and the con-

Digitized by Google

clusion was that the plant as it stood was a paying proposition. They get about three per cent of grease from the crude garbage. Recently grease has been selling at a pretty good price. They dry the residue and sell it to the packing concerns as filler for fertilizer, but, of course, they do not realize very much from this. They also pick it over and get a small amount of cans which they cannot dispose of for very much. They also get some rags which are greasy and are not worth very much. They now get all of the condemned meats and these are worth considerable to them. In regard to Chicago's plan for the future I can say that all of this seems to be quite unsatisfactory, and the question has been investigated by a number of commissions. The conclusion seems to be that garbage should be dealt with as sewage has been dealt with in the different cities. That no general method of disposal should be laid down; the garbage should be studied, analyzed, and, before a comprehensive plan of disposal is adopted, experiments should be performed, and, in the end, probably it would be more economical in a large city to not agree upon one method of disposal. In certain districts and zones of the city destruction would probably be more economical; in other zones, reduction. It would certainly be a waste of valuable material if the garbage from the down town district was burned, because it contains a great deal of valuable grease.

A Department of Public Wastes

"The supreme court has held that the city can take this garbage. It has held that in a Michigan case and also in a California case, and our legal department feels certain that if we wanted to we could take all of the garbage throughout the city, including the material of this nature from hotels and restaurants. Given this material we would have something that would yield a profit if it were carefully reduced. In outlying territories we have people who eat corn and watermelons and it would hardly be worth while to run this through with a view of extracting grease. In those districts it might well be burned. There is a great deal of objection to disposing of garbage on dumps and this will have to be stopped at once. The proposition to dump it behind breakwaters together with refuse in order to fill in and make valuable land, has been considered, but it has been abandoned. This is probably a very profitable method here in Chicago of disposing of refuse, ashes and cinders, but it would create a considerable nuisance if garbage were mixed with this material. There is a great deal of sentiment in this city in favor of establishing a department of public wastes. It is thought that such a department could be made a paying department. There are the dead animals and the refuse, stuff that now goes to the dumps, tin cans and metals of various kinds from which profit could be derived. There is now a council committee considering the feasibility of establishing a department of public wastes."

Said Dr. Fuchs: "In St. Louis we are organizing a federation of all civic organizations into one central council. The plan is similar to that in force in Cincinnati, Boston and San Francisco. The only way to successfully resist political influence is by such co-operation of civic bodies forming one compact body; and I hope that in time local civic federations working for the best municipal practice will hold conventions like this one, only more comprehensive in its representation, and delegates can go back to their homes with a complete knowledge of what constitutes the most up to date, modern and scientific method of disposing of these various subjects.

The Fly in Detroit

Said Dr. Kiefer, of Detroit: "I think the house owner and not the householder should furnish garbage receptacles. We have required the householder to furnish them and he does not do it. Anybody who has money enough to own a house ought to put in a garbage receptacle and it does seem to me that the solution should be this, that we ought to back right up and start all over again and notify the people what is required of the house owner. Say that he must put in a water-tight covered receptacle. I would not even make it metal, that is a debatable question; perhaps a cement one would answer; and then if he does not do it within a required time have the city do it and charge it to him on his assessment. I am rather inclined to favor cement garbage receptacles constructed so as to drain.

"So much for the can, how about the fly? It has been suggested that you keep the garbage as dry as possible and that you wrap it in paper. That is a good scheme, but in cities where you have a garbage reduction plant it has been shown that they will not take garbage that has been wrapped. In other cities where they haven't incinerator plants they could not wrap it. It seems to me the thing that ought to be tried out more is the fly trap over the garbage can. I do not know how many of you know about the efforts of Dr. Hodge of Clark university, in Massachusetts, to have these traps installed. Dr. Hodge came to Detroit and some of the people there asked him who was making the traps and he said: 'Nobody is making them for me. I am from Clark university and am not interested in fly traps but I am interested in getting rid of

Digitized by Google

the flies.' It is the old fashioned scheme, the kind of a trap where they crawl up a hole in the bottom and into the trap. The trap, however, is made stronger than the old fashioned trap and in place of the food tray you have the garbage can and the trap fits right over the top of the garbage can. The flies can get into the can and when they want to get out the only way they can get out is into the trap. It works like a charm. We put one on the garbage can at the city contagious hospital in Detroit and they are emptying that can four times a day and it carries nearly a pint of flies when it is full, and a pint of flies contains over ten thousand as we know because we counted, so you see they are doing something.

Where Women Come In

Said Mrs. Nichols, of Chicago: "After all, the final inspiration has to be brought into the homes, and the women of the Women's City Club of Chicago feel that while they may not understand the engineering features they are really making public opinion, and that this publicity we are giving this subject must bring results. We have felt that the city was hardly fair in printing all its notices in English. I think the criticisms that have been made at this meeting this morning of the foreigners shows that they are not sufficiently educated so that they understand the notices written in English. We induced our department of streets and houses to put out the notices in five different languages, and they wrote a very simple notice, something to this effect: 'Do you want to keep your babies well? Do you want to do without doctors' bills? If you do, then do the following things,' and that helped very much. Then the notice said: 'Don't pay the driver, for the city pays him.' We found some of the city drivers were collecting from the foreign people who did not understand it was free service in the matter of carrying away garbage.

"Experiments were also tried in the ninth ward where the conditions were very bad. A woman who spoke four or five different languages was sent there to instruct the people what the city expected in the separation of garbage, and to see why they did not install a garbage receptacle. She was able to get fifty cans installed. She did a great deal of work in connection with drains and sinks, and gave a good deal of sanitary instruction. But after all it comes pretty largely to a matter of education and there is where we women can help, and I think our women feel they would like to be used in this way by the city. We want to help in the city housecleaning, and we feel we can be of help in this way to the various cities. Hence I hope you will call upon the women in the various cities because I know they stand ready to assist you as do the women of Chicago."

Practice in Toronto

Said Dr. Hastings, of Toronto: "I am sure we appreciate in all cities the co-operation of the women in hunting up nuisances and drawing the attention of the department to them. In regard to the matter of having sanitary notices in different languages, my experience has been that there is one place where you can find out just exactly how much English the foreign element understand and that is in the police courts. We have quite a foreign element in Toronto, and I had ordinances issued this last summer prohibiting the exposure of fruit to flies and dust. I wanted to be as generous with them as possible, and I sent my inspectors personally around to tell those stores and stands where this fruit was being exposed that they must discontinue it. After the first visit—and of course they understand English enough to sell their fruit and therefore to know what an ordinance is—no effect came. Then the inspectors visited them again and a few of them paid attention to it, but very, very few. It was a mere bagatelle, a mere drop in the bucket as compared with the entire number. After a third visit they were told that that would be the last visit and were given three days. They paid no attention and I told my chief clerk to line up twenty-five or thirty of them in the police court two days subsequent to that, which he did, and they were fined five dollars and costs, with the assurance from the magistrate that that would be doubled every time until the maximum was reached. If you had seen the change that brought about you would understand how practical a place the police court is to educate foreigners as to the interpretation of our language. As to the house fly in connection with garbage, there is not a particle of doubt that that insect can be exterminated. If you destroy all the breeding places of the house fly you can simply exterminate the house fly, and do away with the necessity even of having fly traps. In view of the fact that the house fly has been demonstrated beyond question to be a menace to public health and that the garbage cans and dumps are breeding places for the house fly, although of course the manure pile if not properly looked after is also a breeding place. But the house fly can be treated as a nuisance, and I have issued a notice that on and after April next all garbage not removed, or not in the proper receptacle, will be treated as a nuisance, and those who cannot understand the English of that in any other way will be taught it in the police court. Be as generous as we

Digitized by Google

can, and as Chief Justice Carter has told us, it is not well to be too arbitrary, but it is well at times to let loose a solid shot."

Decisions of the Conference

The conference on garbage disposal subsequently through a special committee expressed itself as follows:

I. Garbage should be collected each day, if possible. Where this is not feasible collections should be made at least three times a week.

II. The feeding of raw garbage to hogs should be condemned. Under certain conditions the feeding of garbage that has been sterilized may be permissible.

III. Untreated garbage is a poor fertilizer and this manner of disposition is ordinarily not advantageous.

IV. Under certain conditions garbage may be burned. This is feasible in all instances where garbage and refuse are not separated, or in dealing with garbage consisting very largely of vegetable matter and having a very low fat content.

V. Pure garbage may be reduced. This is especially recommended in the case of pure garbage containing a large amount of fat, as is obtained from hotels, restaurants, meat markets and establishments of that character.

VI. The burning of garbage in household burners is recommended.

VII. The placing of garbage on dumps is condemned.

VIII. The throwing of garbage on the ground can be prevented by enacting ordinances prohibiting this nuisance and by having such ordinances properly enforced.

IX. Garbage may be wrapped in paper in cities where garbage and refuse is burned.

X. Flies can be kept away from garbage by using tight receptacles and keeping them reasonably clean. It is also imperative that the garbage placed in these receptacles should first be properly drained.

XI. It is practically impossible to keep dumps free from flies. Crude petroleum, carbolic acid and other phenylic coal tar derivatives may, in certain instances, be used as fly repellers. An efficient way of preventing flies on dumps is to entirely cover the garbage with a layer of ashes, cinders or similar refuse.

XII. Garbage should be hauled in tight, metal receptacles, with a tight fitting metal cover.

XIII. The picking over of rubbish is not recommended.

XIV. Under certain conditions the burning of refuse in traveling burners may be advisable.

GOTTFRIED KOEHLER, Chairman,
F. A. KRAFT, M. D.,
EDWARD GOODWIN, M. D.

Digitized by Google

Cost of Health Departments

Discussion

In a session for discussion of the "Cost of Health Departments Per Capita," Charles B. Ball, chief of the bureau of sanitation of the department of health of Chicago, presiding, the following questions were considered:

1. How can costs be made comparable? Suggest a plan.
2. What should be figured in cost of health department work?
3. Should school inspection be a part of health work cost?
4. Should tenement inspection be a part of health work cost?
5. Should building plan inspection be a part of health work cost?
6. Should tuberculosis work be a part of health work cost?
7. Should receipts from licenses and fines be credited to health work cost?
8. Should cost of garbage collection be charged to health work cost?
9. What can be controlled by a health department costing 25 cents per capita? What can be accomplished?
10. What can be controlled by a health department costing 50 cents per capita? What can be accomplished?
11. What can be controlled by a health department costing $1.00 per capita? What can be accomplished?
12. What can be controlled by a health department costing $3.00 per capita? What can be accomplished?
13. Should hospitals, dispensaries, clinics and ambulance be charged to cost of health department work?

Commissioner Koehler of Chicago

Assistant Health Commissioner Koehler, of Chicago, touching upon certain of these questions, said: "What can be controlled by a health department costing 25 cents per capita, and what can be accomplished? In these remarks I will follow the classification of cost as adopted by the census bureau, viz., (a) health conservation, (b) sanitation. In speaking of the cost of a health department, I will consider all the expenditures classed by the census bureau, under health conservation under three subheadings, viz., health department, quarantine and contagious disease hospitals and morgues. Morgues might well be omitted, because the cost of the same barely averages $3,000 for each of the sixteen cities having a population of 300,000 or over.

"Furthermore, in answering these questions, one has to consider what is to be controlled and what needs to be accomplished. This varies with different localities. You may answer that the mortality rate shall be the object of control. Yet the results, thus calculated, cannot be made comparable when one deals with cities like Chicago, Cleveland, and Detroit in one class, and New Orleans, and, for example, the Panama canal zone in another. Here such influencing factors as race, climate and sanitation are so variable that it becomes practically impossible to expect the same lowering of mortality in one class, with a given expenditure per capita, that might be expected in another. I will confine my answer to what might be expected in the average American city of 300,000 population or over if a given amount of money were spent for health conservation, and will take Chicago as an example.

"Chicago now spends approximately 25 cents per capita for health conservation. Dr. Evans in an address delivered last year to the City club on 'Accomplishments and Needs of Chicago's Health Department,' said: 'A 25 cent health department in Chicago can hold the gross death rate under 16 per 1,000 for a few years. It can hold the number of deaths from diphtheria at about 800 (3.75 per 10,000); from scarlet fever at about 600 (3.50 per 10,000); typhoid at about 300 (1.33 per 10,000), and baby deaths from summer complaint at about 3,000 (1.4 per 10,000). It can keep smallpox epidemics about twelve years apart and paralyzing epidemics of diphtheria or scarlet fever about four or six years apart. All of this is borne out by the history and records of the department, and is not merely idle speculation.'

Expenditure and Control

"In answering proposition No. 10, one experiences some difficulty. One might take the New York health department as an example. New York city expended for health conservation in 1908, 54.7 cents. The efficiency of the New York health department

Digitized by Google

ranks high, and yet the death rate of New York city for 1910, with a 50 cent health department, was 15.98, as compared with a mortality rate of 15.1 per 1,000 in Chicago, with a 25 cent health department. I cite this to justify me in speculating on results to be accomplished in an average American city, taking Chicago for an example, instead of citing actual examples of per capita expenditures; but not under the same conditions. Then in answering the proposition, I will again quote from the address of Dr. Evans, viz.: 'A health department spending 50 cents per capita should put diphtheria down to, say, 100 deaths per year; scarlet fever to about 500; typhoid to 120, and cut off 5 per cent from the consumption mortality. It should be able to add ten years to the smallpox intervals and three or four years to the diphtheria and scarlet fever intervals.' In addition, I believe the infant mortality could be reduced to 2,500 or less; with this reduction in mortality would go a decided diminution of sickness, and incapacity resulting therefrom. Accidents at birth, and blindness, could also be materially reduced. Venereal diseases could be lessened, and following this would come a lessening of organic cordia-vascular and nervous disease.

"'What can be controlled by a health department costing $1.00 per capita, and what can be accomplished?' With this amount available and a supporting public sentiment, which must necessarily prevail before such appropriations will be made, the work of health conservation can pass beyond the attempt to control communicable diseases. Again quoting Dr. Evans, 'A health department costing $1.00 per capita should improve these conditions and materially improve the sickness rate from colds, pneumonia and consumption.' The living and working conditions will be improved so that the mortality, morbidity and incapacity from impure air and occupational diseases will be materially reduced. Nutritional diseases of infancy and childhood can be dealt with, so that a further saving of 25 per cent in the death rate will result.

A Ten Dollar Resultant

"'What can be controlled by a health department costing $3.00 per capita, and what can be accomplished?' Again I will quote Dr. Evans: 'A $3.00 per capita health department will cause smallpox to recur only at very long intervals; diphtheria to disappear as an endemic disease; the typhoid rate to fall from its present rate, 15 per 100,000 to 1 or 2 per 100,000; will cut the rate from consumption to one-half its present figure; will decrease the loss from colds by one-third; will increase the efficiency of the school child 20 per cent; will increase the efficiency of labor, say, 10 per cent; will accomplish nearly as great an improvement in efficiency of human effort and in health conditions over the conditions now prevailing as the $3.00 per capita health administration in the Panama canal zone has increased health security and efficiency over that which formerly prevailed there. A $10.00 per capita health administration continued for fifteen years should eliminate consumption, smallpox, diphtheria, and typhoid; should greatly lessen scarlet fever; should halve the baby death rate; should halve poverty and materially decrease crime; should increase the efficiency of labor materially.

"'Should hospitals, dispensaries, clinics and ambulance be charged to cost of health department work?' Hospitals, yes for communicable diseases; dispensaries and clinics, yes, for contagious and communicable diseases; ambulances, yes, for communicable diseases."

Dr. Park of Rockford

Discussing the same subject, Dr. W. E. Park, commissioner of health, of Rockford, Ill., said: "It is genearlly conceded that our American municipalities, as an average, are not expending in actual cash a sum sufficient to adequately safeguard the health and lives of its peoples. However, through the substantial educational movement in this direction, which can be discerned in the editorial policy of our American newspapers and magazines, with a subsequent public interest in the question of public health and sanitation, with the co-operation and the support of our physicians it is only fair to predict a greater general vigilance on the question of the community's health.

"Dr. George Thomas Palmer, superintendent of the sub-department of health at Springfield, Illinois, in the August issue of the American City, revealed some startling facts in connection with the cities of our own commonwealth. He states: 'Twelve cities pay nothing at all for public health supervision, including one city of 30,000, one of 22,000 and one of 21,500. The average population of forty-four cities is 16,500; average salary paid to health officers, $300. Of the forty-four cities twenty-nine employ no inspectors, twenty-nine make no pretense of supervision of milk supply, in but nine of the forty-four cities do we find isolation hospitals, only seventeen of the forty-four cities require reports of typhoid fever, and in few are reports complete.'

"When assigned this topic I took pains to send out a letter asking for certain concrete facts about the health departments of some sixty leading cities in the United States. As an evidence of the tepid interest displayed by the health commissioners themselves, and I am judging only by my experience with them, I received in response

Digitized by Google

to my inquiries but thirty-four replies, or nearly 50 per cent. The conclusion one must draw from this is as inevitable as logic itself. The intrinsic trouble with our American health departments rests considerably with the health commissioner. It is to the health commissioner that the aldermen must look for information and guidance concerning matters of public health; it is upon the health commissioner's estimate as to the necessary funds required to be appropriated for his department that the aldermen must rely; and it is the health commissioner's duty to constantly advocate and agitate for such appropriation as he deems necessary. And in this agitation it is the duty of the physician and of every public-spirited citizen, to support the health commissioner.

The Health Commissioner

"The health commissioner's interest in his office should not be confined entirely to the appropriation. The health commissioner who only pretends to be busy will never make an impression with the aldermen or the citizens, no matter how astute a politician he may be. My investigation has revealed that there is not a very wide divergence in the proportionate amount of increase recommended by the leading departments of the country. The average per capita cost of the cities from which I had reports is .317 per person, and the average increase in appropriation desired is about 100 per cent, or .634 cents per capita. To say that a department wishes an increase in appropriation of 100 or 200 per cent, however, does not necessarily imply that the department would be properly financed. For it must be considered that if a city of, say 70,000 inhabitants, is spending but 5 cents per capita for its health department each year (and there is such a city in these United States), and that department recommends but 15 cents per capita for each year (and that is actually what this department did), then, I believe such a department is hardly asking for a sufficient appropriation.

"In a group of nineteen cities ranging from 30,000 to 50,000 we find an average per capita of .273 cents, minimum 11 cents, maximum 41 cents. Twenty-six cities ranging from 50,000 to 100,000 have an average per capita of .332 cents, minimum 5 cents, maximum 93 cents. Seventeen cities ranging from 100,000 to 300,000 have an average per capita of .336 cents, minimum .145 cents, maximum .705 cents. Of cities more than 300,000, fifteen cities have an average of .328 cents per capita, minimum .20 cents, maximum .60 cents.

"Basing my conclusions on my investigations, I believe that cities ranging from 30,000 to 50,000 in population should have a minimum per capita cost of 50 cents. Cities ranging from 50,000 to 100,000 thousand in population should have a minimum per capita of 75 cents. Cities ranging from 100,000 to 300,000 should have a minimum per capita of 85 cents, and all cities over 300,000 should have not less than $1. These figures are not based on cost of garbage collection, refuse and cleaning alleys, which belong to another department.

Enlarge Responsibility of State

"Besides the steps taken by the municipalities to regulate public health, it is my opinion that the responsibility of the state in this same matter should be considerably enlarged. There should be a statute enacted by the legislatures empowering the state board of health to name health inspectors for each county, or possibly for each senatorial district. It should be the duty of this inspector not merely to act on complaints received by the state board, but to initiate inspections for sanitary conditions, to take samples from wells used for drinking purposes and also samples for public water supplies. The inspector should also pay special attention to sewage, vaults, milk supplies and general sanitation.

"The last legislature of Illinois enacted a bill that divided our state into certain districts for the purpose of enforcement of the fish laws. The head of each district receives $900 per year, and in each county there is a deputy fish warden who receives $35 per month for protecting the fishes. Those of you who know how many counties there are in Illinois can figure out for yourselves how much Illinois is spending merely to protect the little fishes.

"Why would it not be just as practical to spend a little money to protect the little babies from typhoid fever, smallpox, diphtheria and other contagious and infectious diseases? And it is not only our babies whom we would be saving, but it is the entire community which is constantly exposed to any number of dangerous ailments through lack of proper sanitation."

Digitized by Google

Municipal Government in Germany

Dr. H. Lindemann, Stuttgart

There was procured for submission to the congress a paper on the government and powers of the municipalities of Germany by Dr. H. Lindemann, of Stuttgart, Germany, one of the foremost of Germany's municipal authorities, an author and joint editor of the "Kommunales Jahrbuch," with Dr. Sudekum, of Berlin, and a state and imperial legislator of experience. The article, written for the congress in German, is presented in English as follows:

The population of the German Empire has grown in the period from 1871 to 1910 from 41 millions to 64 millions in round numbers. This immense increase benefits principally the industrial regions and the cities of Germany. In the same degree, as the percentage of the population engaged in industries, commerce and mechanics has grown, the number of the cities and of the part of the population made by the inhabitants of the cities has increased.

The sum total of the modern energies of the German population is contained in the German cities. With their welfare the welfare of the German Empire is connected indissolubly; without exaggeration it may be said that Germany has become a city-building country during the last decades.

Origin and Age of German Cities.

The origin and the age of the German cities differ greatly. A part of them may be traced down to Roman times. Cologne, Mayence and a long row of powerful cities on the Rhine, and in the western parts of Germany, owe their origin to the city-building Roman legions. Near them we find, especially in the Rheno-Westphalian coal regions, and in the industrial districts of Upper Silesia, metropolitan cities, whose existence dates from yesterday or from the day before. These cities have developed from small villages to cities with more than 100,000 inhabitants during a few decades under the nourishing influence of industry.

Between these two extremes the mass of the German cities is inserted. A large part of them may be traced back to the ninth and to the tenth century; they have played a splendid part in the middle ages. We mention Frankfort-on-the-Main, Augsburg, etc. These have held their "Reichsunmittelbarkeit" (independence) for centuries, and have lost it as lately as during the Napoleonic era, during which the map of the German Empire was revised about once every year.

Some Declined, Some Advanced.

A part of these ancient cities have gone backwards in their development. The commerce, to which their former splendor was due, has found different roads; the industries furnishing sustenance to their inhabitants have been revolutionized technically and have sought other places. Development stagnates in these cities. The population grows slowly only. Their importance is gone, their part is played out, unless some new discovery, the establishment of some modern industrial plant wakes up the city from its centuries-lasting sleep to a new life. Another part, whose favorable situation lived through all the revolutions in regard to roads of commerce and technical development, have developed from cities of medium size, as such they were when they had entered the period of modern development to become metropolitan cities. Berlin, Leipsic, Nuremberg and others belong to this class.

Retention of Valuable Real Estate.

This difference in historical origin is of not inconsiderable importance for the present economical situation of the German cities. The old cities, of which a large number were "reichsunmittelbar," i. e., sovereign independent republics, communities subject only to the supreme authority of the German-Roman Empire, as a rule have saved from this time of independence large landed properties, partially houses in the city proper, partially large vacant tracts (fields and meadows) inside of their city limits, partially forests and farms inside and outside of their territory. Not counting the financial resources coming therefrom these valuable landed properties make it easy for the cities to conduct a reasonable policy in regard to grounds and living houses.

Digitized by Google

Industrial Communities Have Little Land

On the other side the industrial communities of later and latest origin mostly have narrow city limits, and frequently nearly no landed property at all. Nearly each square yard of ground they need for municipal buildings has to be purchased by them at high prices. The cities are expected to build streets for the quickly growing residence sections, to install promenades and playgrounds without having at their disposal the ground necessary for these purposes. Besides the acquisition by purchase they can only use insufficient and time-absorbing expropriation rights, which strongly favor the interests of the single proprietor as against the wants of the community.

Berlin's Municipal Real Estate.

As the importance of the possession of landed property for the municipal government increases continually, some statistics about the size of municipal possessions ought to be welcome. Among the cities with more than 200,000 inhabitants Berlin owns the largest landed property counting her possessions inside her city limits and outside of them. It amounts to 18,575.59 hectars (1 hectar being equal to 2,471 acres), of which 622.2 hectars only are situated inside the city limits, and 17,935.39 hectars outside of them. Breslau, which holds second place, likewise has the larger part of her landed property (farms and forests) outside of the city limits, 5,678.9 hectars, against 1,035.34 inside of the same. The opposite proportion exists with Stettin, with 5,483.32 nectars, and with Frankfort-on-the-Main, with 5,361.72 hectars. With Frankfort-on-the-Main especially the overwhelming part of the municipal property is situated inside the city limits, and it consequently has quite a different importance for the municipal government than the farms and forests owned by the other large cities, which partially are located far from the built-up sections.

Forests One Form of Municipal Property.

The size of the municipality owned landed property is not a factor which is in any way connected with the number of inhabitants of said city. Smaller cities of medium size, like Brandenburg, with about 51,000 inhabitants. Goerlitz, with about 83,700 inhabitants, Rostock, with about 64,000 inhabitants, own many times the size of the landed property of our largest cities. The municipally owned landed property of the city of Goerlitz, for instance, amounts to 31,141.1 hectars, of which, it must be conceded, the largest part consists of woods.

More interesting and more instructive are the statistics explaining the percentage of the total area inside the city limits (roads, streets, railways, watercourses and fortifications being excluded) occupied by the area of the landed property owned by cities. This percentage was in 1908 with

Municipal Property Within City.

Fribourg in Baden	72.1	Frankfort on the Oder	21.9
Frankfort on the Main	61.5	Chemnitz	20.0
Coblenz	58.6	Mayence	20.0
Stettin	56.9	Dortmund	18.7
Augsburg	55.4	Dusseldorf	18.2
Spandau	46.1	Gleiwitz	17.7
Rostock	43.4	Barmen	17.4
Mannheim	42.5	Charlottenburg	17.4
Strassburg in Alsace	41.5	Bromberg	15.6
Offenbach	38.0	Berlin	15.0
Breslau	34.3	Koenigsberg in Prussia	14.8
Darmstadt	32.8	Zwickau	14.2
Brandenburg	30.7	Essen O. R.	13.7
Cologne	29.9	Muenchen-Gladbach	12.3
Munich	28.6	Elberfeld	11.9
Malle on the Saale	27.5	Dantzic	11.0
Kaiserslautern	27.1	Altona	15.3
Beuthen	26.5	Muelhausen in Alsace	15.0
Karlsruhe in Baden	24.9	Goerlitz	14.3
Dessau	24.5	Nuremberg	14.1
Stuttgart	24.4	Crefeld	13.5
Hanover	23.9	Cassel	12.1
Bielefeld	22.6	Erfurt	11.3
Liegnitz	22.4	Duisburg	10.8

Municipal Land Indispensable.

In the same degree in which the municipal government gains in extent and in variety of its branches, the hunger for landed property increases. For the establish-

Digitized by Google

ment of forest recreation places and of forest schools, of parks and playgrounds, the possession of wooded territory is absolutely necessary. The cleaning of the city's sewers in gravel plants, the erection of municipal light and power stations, of water works—these are all based upon the possession of land. The whole budget of questions connected with the building up of the city and with the living-house prolem is to be added thereto. For a rational extension of the city, for carrying out building plans and building ordinances, which purpose to establish a graduated density of buildings, for the creation of garden suburbs, for the erection of workingmen's residences surrounded by gardens, the possession of land is absolutely necessary. The quicker a city grows the shorter the period of time in which all these tasks are submitted to a municipal government, the more distinctly the lack of municipally owned land is felt.

Special Real Estate Funds.

Consequently it is not astonishing that in connection with the growing knowledge of the importance of municipally owned landed property the German municipal governments have created special institutions, called "Grundstuecksfonds" (funds for landed property), whose general purport may be summed up in two points, viz.: conservation and administration of the property already owned by the city, and, secondly and principally, its extension and increase. These funds are endowed from moneys obtained through loans for the purpose to be able to make use of chances for purchasing larger tracts of property.

In 1908 in sixty-one cities property was bought to the value of 75.9 millions of marks, or about $19,000,000. At present we are still at the beginning of this municipal policy of purchasing, whose further development, including legislative measures in its favor, is to be expected during the next few years.

Property and No Property.

In the constitution of the German cities their former history is expressed also. Not practical reasons, not only the thought how must the government of a city be constructed in order that not only the tasks historically brought down, but principally the tasks added to the former by the economical development may be fulfilled most simply, without friction and with the least amount of force and power, have solely been the basis for the development of municipal government in Germany. To the contrary, we find there side by side the sediments from the class wars fought centuries ago between the patricians and the mechanics' crafts, and of the modern political controversies existing between the requirements of a centralized bureaucracy and the necessity of municipal self-government, between property and no property.

Municipal Dissimilarities.

Germany is a federacy, and just as little uniform as are her state constitutions and organizations, as little uniform are those of the communities. In the single states we further find the great differences between city and rural communities governed by separate laws, and the difference between the single parts of the same state. The situation is most complicated in Prussia, where each of the western provinces situated west of the Elbe, like Slesvic-Holstein, Hannover, Westphalia, Rhineland, Hesse-Nassau, the city of Frankfort-on-the-Main and Hohenzollern, has its own laws of municipal government, while common laws for city government have been enacted for the seven eastern provinces. Furthermore, a considerable number of cities in Pomerania have special local city privileges of their own.

Historic Bases of Franchise.

The differences begin from the personal basis. In German municipal law the creation of the electoral body, viz., the circle of persons entitled to vote and to be voted for at municipal elections, is based on the principle either of the community of citizens or of the community of inhabitants. The first is the historically older form; it was in force everywhere and was generally used up into the nineteenth century. With it the membership in the community is joined to the right of citizenship, which was acquired by the descendants of citizens by this fact of decent, by strangers by special endowment therewith. The citizens only were entitled to participate in the advantages of the public property, to use public institutions and to take part in the municipal administration. This community of citizens is still in existence, particularly in the southern states, Wuerttemberg and Bavaria. Opposite to it stands the community of inhabitants, which is especially prevalent in the Prussian municipal laws, but also in those of Baden and Hesse.

Community of Inhabitants and Community of Citizens.

In the community of inhabitants the membership in the community is not joined to the citizenship, as in the community of citizens, but all the inhabitants of the com-

Digitized by Google

munity are members of the same in virtue of their residence therein and have their rights as such. The participation in the municipal elections, and the holding of municipal offices only is subject to further conditions in most municipal laws. The same is likewise in force in the citizens-communities where a certain age, the payment of taxes and other conditions are prescribed for the right of voting. Where the citizenship community is in existence the right to vote is equal for all the citizens, provided they possess it. But it is unequal and different according to a part of the German municipal laws, especially of the Prussian laws, depending upon the amount of the income.

The Three Class Voting System.

The "Dreiklassenwahlrecht" (election rights according to a system of three classes), under which all inhabitants, who pay more than a certain minimum in taxes or fulfill other property conditions, are divided into three classes according to the amount of taxes paid by them, each class electing the same number of councilmen (Stadtverordnete), amounts to granting extensive privileges to property and graduates the right of voting according to the size of the property. Two examples may be given to show how unequal the right of voting becomes under the three-class system. In 1901 in Berlin 307,351 persons voted in the third class, 27,484 in the second and 1,450 in the first. In Charlottenburg in 1909 the first class contained 1.52 per cent, the second 17.59 per cent and the third class 85.89 per cent of all voters. Consequently a voter of the first class had fifty-six times as much voting right as a voter of the third class. In other municipal laws the same purpose—to deprive the classes with small means of the exercise of the voting right—has been served by the plurality law, which, for instance, in Meiningen grades the number of votes to be case up to ten according to the amount of taxes paid, and by the census, which makes the right to vote dependent upon an income of not less than 1,200 marks, and in the citizens-communities the requirement of a residence of several years and the charging of fees—sometimes very high ones—when obtaining the citizenship. This short summary shows that there is a very large difference in Germany between the right to vote for the "Reichstag" and to vote at municipal elections. (Note: All male inhabitants of 21 years of age are entitled to vote at the general elections, provided they are not deprived of their right by process of law.

Electoral Prerogatives of House Owners.

Besides this general discrimination in favor of property in the German municipal charters, a part of them—those of southern Germany are excepted—has also the further discrimination in favor of a special kind of property, namely, of landed property and houses. In the districts governed by most of the municipal laws of Prussia at least one-half of the councilmen must be house owners; in cities where the elections are held under the three-class system at least one-half of the councilmen elected by each class must consist of house owners. This legislation, certainly obsolete, puts the municipal administration into the hands of a small class, that of the house owners.

This class of the house owners, which has developed itself during the last decades of the development of the cities, mostly consists of persons who make a profession of the renting of flats and apartments and of the sale of houses; they possess generally small amounts of money only, and see their whole duty in the raising of rents and thereby raising the ground rent and securing the unearned increase of value for themselves. It is clear that with such an organization of the municipal bodies the whole city administration derives its policy from the viewpoint of the house owners' interest only, and that all endeavors purporting reform in the upbuilding of the cities, and improvements in the housing conditions, find their strongest opposition with them.

Proportional System in South Germany.

As in the construction of the voting rights a more democratic system is characteristic of the south of Germany, a further difference between it and the north is to be found in the fact that the casting of the votes is always not public in southern Germany, and that the proportional method of election has taken the place of the majority election at least in the larger communities of Bavaria, Baden and Wuerttemberg. The proportional method of election is in force in Bavaria in all the cities with more than 4,000 inhabitants, in Baden in all the cities subject to the municipal law, and in Wuerttemberg in all the cities over 10,000 inhabitants. The method is nearly the same in Bavaria and in Wuerttemberg. "Panaching" (scratching) of the lists is permitted and accumulation up to three votes is also allowed. In Baden, however, complete lists (tickets) are the rule; i. e., they vote not for a single candidate, but for the whole list of the various parties or groups. The experiences made with the proportional method are still recent. As far as they can be judged a representation of the minorities is effected thereby as well as an even and steady communal policy. Such radical changes, as were formerly effected by an election, which threw out the reigning party, are now impossible. The jumping from one extreme to the other, as it happens rather frequently in other German

Digitized by Google

cities, where the parties are of about the same strength, cannot impede the quiet development any more. Doubtless this fact has its valuable advantages. But on the other side the progress is slower.

Council Government and Mayoralty Government.

Differences of similar importance, as found in the election rights as fixed by the German municipal codes, may be observed in the organization of the municipal administrative bodies. Neglecting smaller differences and shades, we may divide the German municipal governments into two large groups: The first group is the one with the typical council government, the second one is the group with the mayoralty government. A position between both is occupied by Wuerttemberg and Baden, where they have two chambers also, but where the relations between the two chambers show many differences. In the council government opposite to the common council, consisting of members directly elected by the qualified citizens, stand the board of city councillors (Stadtrath), whose members are elected in Prussia by the councilmen, it is true, but are subject to ratification by the central state government. Furthermore, the conduct of business by the board of councillors is controlled by the state board of control.

The Common Council.

The common council is a deliberative and controlling body principally, certainly having the right of initiating, but naturally only able to use this right in rather narrow limits. The board of councillors has equal rights, but prepares the deliberations, consequently having all the initiative in the administration, and furthermore, executes all the resolutions enacted by common consent of both bodies through the municipal officers controlled by it.

The head of this system is the mayor, elected by the common council, and ratified by the state government. He is the chief of all municipal officers, the president of the board of councillors and, except in the places where a state police has been established, the chief of the police department. In this capacity he stands directly under the state government. In fact, the mayor of a Prussian city is an indirect state official entrusted with the conduct of the municipal administration, and, as a rule, he is taken from the state bureaucracy.

The Mayor in Mayoralty Government.

In the second principal form of municipal government in Prussia—a form which is also in force in Alsace-Lorraine, in the so-called mayoralty government—the mayor has the functions of the board of city councillors in his hands also. He is the head of the city and the executive officer of the administration of the community. All administrative duties are joined in him, and the activity of the common council is purely deliberative and controlling.

From the construction of the official organization alone it can be seen that we cannot speak of self-government in the strict sense of the word in the largest part of Germany. The board elected by the inhabitants is excluded entirely from the real administration. In none of the federal states it may execute its resolutions by its own organs. Furthermore, it cannot even adopt a resolution legally enforcible, unless the second chamber, the board of councillors, gives its consent. The only exception to this is Wuerttemberg, where the mayor as well as both chambers of the city council are elected by the citizens directly.

State Supervision of Cities.

Self-government is still more impeded by the exceedingly far-going supervisory rights of the state government. These rights firstly touch the selection of the persons who have to take a leading part in the municipal administration, and further touch the control of the single actions of the city administration.

The extent of these supervising rights of the state is different in the various states. In Prussia, for instance, the supervising officers have to look out that the municipalities do not exceed the legal limits of their activity, thereby safeguarding the legality of the municipal administration. To do that they may order the mayor to oppose resolutions passed by the common council or by the board of councillors, which are illegal or exceed the limits of their jurisdiction. Furthermore, they take care that the community fulfills its task inside the sphere of its competence, and that the business of the municipal offices is conducted in its regular way. To do so they have the right of looking into the administration generally. They may demand information about all the branches of the municipal administration; they may require the turning over of all official documents, of the budget and of the official vouchers; they may examine the treasury department in the city itself, and may inspect the whole administration from time to time. Furthermore, the cities need the consent of the state supervising officers for a number of important measures, especially those connected with the administration of their finances, the contracting of loans, the levying of new taxes, etc. The municipal officers

Digitized by Google

may be compelled to do their duty properly by fines and disciplinary punishments. Finally the supervising officers in the enforced budget—i. e., in the enforced introduction of certain items into the municipal budget—possess the power to force the communities to grant the means needed for the fulfillment of their legal obligations.

The German and English Systems.

In reviewing this long catalogue of the rights of the state supervising authorities one easily understands the remark that "in Germany local self-government exists only so far as it is permitted by the state supervising authorities." The relation between state and city is not, as in England, for instances, the more liberal relation between a supervising and controlling authority and the office subject to this supervision. It is only a little different from the relation of subordination, as it exists in the state bureaucracy between officers of higher and lower rank. It must be stated, however, that in the southern states of the federacy the position of the cities and of self-government in general is more liberal and free, and that the supervising privileges of the state authorities do not go as far in all points as in Prussia. But, taken as a whole, the picture drawn above has the same likeness.

Municipal Initiative Weakened.

Such an arrangement of the relations between the supervising authorities and the cities naturally has its great disadvantages. There is friction between the state authorities and the cities more inclined to a decided initiative, and become more self-conscious with the growth of their material welfare. The fights between the Russian district commissioner (Landrath), who is the intermediate authority for cities up to 10,000 inhabitants between the city and the supervising office, and who likewise has the supervision over the police administration in all cities not exempt from the district government, and the cities under his jurisdiction, have no end and have occupied during the last few years especially the public and the legislative bodies. The continued guardianship weakens the initiative of the communities. The endless controlling, the extensive reporting to the supervising authorities absorb a large quantity of working power and of the love for work lost to their own administration.

If the great progress made in Germany by municipal government not only in the large cities, but also in the smaller ones—yea, even in the rural communities—calls for the astonishment, frequently for the admiration, even of all those visiting Germany, it has been made to a large extent against the state supervising authorities.

Mission of the Germany City.

In a decision rendered by the Supreme Administration Court of Prussia the German community is designated, according to its origin and its character, as a combination of economical, social and political purposes, limited only by the supervising right of the state given by modern legislation. According to this decision the general political importance of the community, and the mark of its special duty distinguishing it from the duties of the other corporations, is to be found in the fact that it has not one more or less single purpose but the mission to absorb in itself all the relations of public life and to conduct them toward the free self-government of the people. Consequently the community may regard everything tending to the improvement of the whole either on its material or on its mental side as part of its duty, and it may create and maintain the institutions necessary therefor. Only the one boundary of locality, of limitation to the city limits and to the inhabitants living therein, is to be considered.

Restraints Upon Autonomy.

One expression of this autonomy is found in the right of enactment of their own legislation, viz., in the right to pass ordinances concerning the make-up and the duties of the municipal organs, and the mutual relations between the community and its members. Two limitations have to be observed, however. It may neither intrude into the private business of its members nor may it regulate by local statute such conditions which touch any police interests, be they concerning safety, traffic, sanitation or public welfare. As the police is regarded as a state department in Prussia, whose local administration may be conferred upon the mayor or the board of councillors, the city would otherwise annex duties belonging to the state and thus exceed its jurisdiction. Unless special permission be granted the city may not enforce the obedience to the regulations, enacted by it, by penalties. But violations may be put under penalty by local police regulations. This duality of conditions and authorities is abolished in other federal states, as in Wuerttemberg, where the local police is a municipal matter. In these states the right of the cities to enact local statutes goes much farther than in Prussia, comprising, for instance, the exceedingly important local building code. All the statutes, as well as the local police regulations, simply need a general consent of the state authorities, given in different forms, however.

Digitized by Google

Nevertheless Much Chance for Original Progress.

As shown above the sphere of business, in which the cities may show their activity, is limited in so far only as it must concern either the interests of the entirety of the inhabitants or of a certain part of them. Consequently the position of the German cities is a much freer one, as far as this important point is concerned, than that of the English cities, for instance. These may only draw matters into the sphere of their activity as far as the law has given them authority to do so. The province of their activity is strictly limited by law. On the other side the German municipality may, provided it does not violate the one limitation, act without hindrance inspiringly and helpfully in all directions as it is required by the economic and social development of the life process of the community going on inside of its walls.

Powers to Go Ahead.

It does not need an act of parliament to erect and to run electrical plants, gas works or waterworks, to create homes for babies, to establish municipal model stock yards, etc. As long as it is able to procure the necessary means from its current income it does not even need a consent from the state supervising authorities. Only in case that it wants to procure the necessary sums by way of a loan this consent is necessary, and it may be granted or refused by the state authorities, according to their own free pleasure. The obstructions raised by them, however, may be overcome still more easily than the prejudice and the conservatism of the parliaments, especially in cases where matters formerly left to private initiative entirely are to be turned over to the collective initiative of the municipality. By this position of the German city, by this liberty of initiative to a large part is explained the immense progress which German municipal government has made during the last decades, even if its deeper cause is naturally to be sought in the universal prosperity of general conditions in Germany.

Municipal Functions.

Provided that the social progress of life going on in a community is to be regarded as the field for the activity of the community, the direct consequence is that this social process of life includes not only the life of the community as such and the life of the single individuals, but also the lives of the property classes and the professional groups characteristic of our society. To the first group of functions serving the entirety of the inhabitants belongs the provinces of public sanitation, of building up the cities, of public utilities and of public education; to the second group the departments of relieving the poor and of social questions. In all these provinces the German cities have worked during the last decades with a large expenditure of financial and mental forces, and frequently with an admirable initiative.

Control of Foodstuffs.

The German city takes care of public health, as far as local conditions are concerned. To this department belong the building of sewers and the cleaning of these, and the removal of the other garbage (fecalia, kitchen waste, street dirt, carcasses, etc.). The city has begun to some extent to take care of the food of its inhabitants by enforcing through a strict control the wholesomeness and purity of the foodstuffs and by establishing public markets, and by regulating the supply of foodstuffs by the erection and maintenance of market halls, and by providing through the erection and maintenance of slaughter houses, that its inhabitants receive in a wholesome condition one of the most important foodstuffs, which, nevertheless, frequently causes the greatest damage to public health, meat. Berlin has created a system of central and retail market halls, which are distributed all over the city. Cologne has two, Dresden and Frankfort-on-the-Main have three market halls each. Altogether twenty-two cities have established market halls.

Municipal Slaughter Houses.

While market halls are necessary in large cities only, the want for the establishment of municipal slaughter houses has made itself felt in smaller communities also. Of 2,509 cities with more than 2,000 inhabitants not less than 783 have slaughter houses of their own; of 281 rural communities, with more than 5,000 inhabitants, 19. The cities with more than 50,000 inhabitants have all their own slaughter houses, with a few exceptions only, and part of them have large stock yards also, which cater not only to the city proper, but also to a large surrounding territory.

Physical Efficiency of Citizens.

With a special energy the German cities have taken up lately the care of the bodies of their inhabitants. Bathing places are established everywhere, sometimes containing shower baths and tubs only, at other places large central establishments with swimming

Digitized by Google

pools, tubs, shower baths, Turkish baths, medicinal baths, etc. Parks with playgrounds and grounds for sports of all kinds are created. The school children are led once or twice regularly every week to the playgrounds or to the swimming pools. To clean the bodies of the school children shower baths are installed in the schools, and they are to be found in all modern school houses.

Conserving the National Working Force.

Parallel to this careful and preventive activity in the province of public hygiene runs the real fight against sickness. The activity of the German municipalities is extended farther and farther here also. Hospitals and institutions for reconvalescents, lying-in and maternity homes, sanatoriums for people suffering from tuberculosis, recreation places in the woods, homes for babies, accident stations and life-saving stations—all these establishments and institutions mark the same number of activities of the German municipalities. Finally the administration of cemeteries and crematories, with which the conducting of funerals under the supervision of the city is connected to a large extent, may be given a short mention.

The Community Superseding the Individual.

As in the province of public hygiene we may observe all the other branches of the municipal administration mentioned above in the building up of the cities and in the housing of its inhabitants, in relieving the poor, in the policy toward the workng men, etc., the same tendency to replace private enterprise, as far as it was in existence, by the activity of the community. Private enterprise, however, has always played a small part in this, regardless of the fact whether it was inspired by the desire of gain or by charity. It was different in the province of public utilities, which comprises all the institutions and measures which serve the economic process of production of the city's inhabitants, as street railways, gas works, electricity, water works, harbors, storage houses, etc. Here the tendency for municipal ownership, for concentration of all these utilities in the hands of the municipality may be observed much more distinctly. Some statistics covering the extent in which the cities are possessors of such institutions may furnish the proof therefor.

Gas Works.

Of 1,176 communities, in which gas works are in existence, 758 have their own gas works, 28 get their gas from the works of other communities and only 390 get it from private plants. That means that 64.5 per cent are public property. The larger the population of the cities the larger is as a rule the number of the public gas works. In the group of the cities of between 20,000 and 50,000 inhabitants 80.8 per cent, in the cities with more than 50,000 inhabitants 76.5 per cent of the gas works are municipal property.

Water Works.

In general municipal ownership is progressing as compared with private enterprise. This progress of municipalization is rather slow, however, because the franchises granted to private enterprises have mostly a rather long duration. Municipal ownership is still more in evidence with water works. Ninety-three per cent of all water works are municipal property. Of 1,432 communities in which water works are to be found 1,333 have their own plants, 32 are furnished with water from other public corporations, and 65 only from private concerns. Sanitary and social reasons always have had such a preponderant influence upon the water supply in Germany that private water works did not get much of a chance. Certainly there are large stock companies founded especially for furnishing the water supply, and not limited to the territory of a single city. But their number is rather small.

Electricity Works.

The opposite is the case with electricity works. There the number of private enterprises exceeds that of the municipal plants. Of 1,055 communities in which electricty works are to be found, 434 have their own works, 9 draw the power from the works of some other public corporation, 612 from private concerns.

Street Railways.

In the same way the number of municipally owned street railways is smaller than the number of private ones. Of 82 communities with more than 50,000 inhabitants, which have such a railway, 33 run their own lines, while the roads are private property in 49 cases. All these statistics are taken for the year 1908. Since that time conditions have changed very little. But a faster increase of municipal institutions is to be found here also than that of private industry.

Digitized by Google

Foremost Municipal Issues.

Although the extension of municipal ownership has not progressed in the same measure all over Germany, a large variation being observable from city to city, yet the tendency everywhere is to extend municipal ownership. At present the questions of foodstuffs supply, of garbage reduction, of traffic and of housing stand in the limelight of public interest. It is expected that new functions accrue for the cities taking them outside of their own city limits. As the same time the question of procuring electric light and power drives the cities outside over the narrow boundaries of the city's territory to the founding of associations of municipalities, in which the large metropolitan city is melted together with a large number of suburbs and neighboring communities for these certain purposes, for the making of special supply contracts or for direct incorporation.

Disadvantages of Municipal Ownership.

Municipal ownership has prevailed as in other countries in a continuous fight against private enterprise. Here as elsewhere objections are made against it on account of its technical and economic slowness, the heaviness of its administration and the discrimination in favor of the legal department as against the technical staff. It may be conceded that a certain heavy conduct of the administration is founded upon the singular administrative organization described by us, in which political influences have gained a strong preponderance. A simplification of the two-chamber system in force in most of the municipal governments certainly will cause a smoother and more frictionless transaction of business, while, on the other side, by the double deliberation in two different bodies a more careful working out of the plans and a safer financial foundation, etc., is guaranteed. The overcoming of these obstacles is made easier by the existence of a staff of officials, whose integrity is inviolate today, even nothwithstanding several attempts to bribe them made directly or indirectly, and which enjoys a far-going independence from political parties.

The maxim, "The spoils to the victor," does not exist for the German municipalities for the reason that every change of political systems leaves the official staff, as far as it is in office, unchanged, and that the victorious party may only use its influence in refilling vacant positions.

Another protection against the undermining of the municipal administration by political catastrophes hitting different parties is given in the proportional election method. In the creation and in the maintenance of an independent and socially prominent official staff, splendidly educated for doing its work, be it of a technical or a purely administrative nature, the municipal governments of Germany see one of their most important duties, which they have tried to fulfill by establishing special courses and schools.

Errors of Critics of the System.

Concerning the other objections against municipal ownership, it may be said that they generalize single incidents and draw far-reaching concluions therefrom. In my book, "Arbeiterpolitik und Wirthschaftspflege in der Deutschen Staedteverwaltung" (Stuttgart I. H. W. Dietz, 1904, 2d vol. Wirthschaftspflege pp. 21, 111), I have shown on the basis of an extensive array of facts that these objections are without foundation. The Verein fuer Sozialpolitik (Association for Social Politics) at its annual meeting held in Vienna in 1909 has likewise expressed the same opinion. In the matter of light and power stations, of water works, of street railways monopolies only are concerned as a rule where the influence of opposition, indispensable for private enterprises, is excluded from the start.

Every Municipal Service Up to Date.

The other factors which execute a control over the management of a monopoly and give a certain security against the absolutism of the bureaucracy and against technical stagnation, the publicity of the press, the agitation and the attacks by political parties, have a much stronger and more extensive influence under public ownership than against a private stock company, which may use its contracts as a bulwark and by whose passive resistance all the influence of the municipal councils is wrecked. In fact, all the institutions managed by German municipalities are perfectly up to date technically, and if their financial results are seemingly not the same in some cases as those derived from private enterprises, the opposition likes to forget in comparing them that they are managed in a much more social spirit, and that they furnish to the consumer by cheaper prices and to the workers employed by them in pensions, benefits for their families, vacations, etc.—much greater advantages than private enterprises.

On account of the extension of municipal ownership the amount of the indebtedness of the German municipalities naturally has been increased continually. At the end of the year 1907 the total indebtedness amounted to 6,560.3 millions of marks (mark. about 24 cents). Of this amount the municipalities with more than 10,000 inhabitants carried

Digitized by Google

5,074.4 millions. In reviewing the purposes for which those loans were made we find that in the Prussian cities with more than 10,000 inhabitants, for which we have statistics, in an average 52.7 per cent of all the debts were made for industrial purposes. The distribution in the several larger cities shows a great difference. The list is headed by Duesseldorf, where 77.97 per cent of all debts are due to industrial enterprises. Altona follows with 68.73 per cent, Dortmund with 65.98 per cent and Berlin with 65.23 per cent. The least favorable proportion exists in Schoeneberg, where only 22.36 per cent of the loans were devoted to these purposes. In Schoeneberg gas, water and electrical works are in the hands of private corporations.

Municipal Finance.

We add a few statistics about the indebtedness and the income derived from some of the public enterprises in all the Prussian cities based upon a report made by the Prussian statistical office dating from 1906, as later statistics are not obtainable.

	Number of communities having plants, as mentioned above.	Total indebtedness caused by acquiring these plants.	Expense connected with administration of loan department in 1905.	Improvements and extensions in 1905.	Reserves and refunding funds, etc., in 1905.	Amount of profits made in 1905.
Gas works	440	228,003	12,855	9,044	3,363	40,069
Electricity works	201	129,845	7,413	4,155	2,550	8,880
Water works	561	306,936	18,437	5,437	2,520	16,339
Slaughter houses	424	144,571	8,619	1,162	993	2,606
Market halls	38	34,978	1,861	73	22	968
Street railways	35	75,950	4,034	1,548	1,306	3,312
Spurs, extensions, etc.	35	19,925	960	103	86	95
Harbors and wharfs	97	109,741	5,737	2,676	142	.....

These statistics show clearly what an important part is played by the industrial institutions in the administration of the German cities. In the federal states other than Prussia conditions are the same. The cities not only fulfill a very important general social and economic duty by municipalizing these institutions in the interest of the whole population, but they also gain a considerable income therefrom, which may be used in the budget of the city, and which makes the extension of the administrative activity to new branches much easier than it would be if the expense therefor was to be covered from new taxation exclusively.

Standard Bearer of the New Civilization.

A German city of the present time, although it works under the same municipal law, is an entirely different thing from the city of several decades ago. The modern economic development has congested more and more masses of people in the cities, and has forced their governments to take care of these masses, whose housing, education, etc., could not be left to private industries. Consequently the city had to take upon itself all the new duties derived from the rapid growth of its population, from the increased social and economic necessities, from the requirements of the industries existing on its territory, and of its commerce.

The city became the bearer of the ideal of civilization, to procure a decent civilized existence for the masses of the urban population, to combat with its rich resources the faults and disadvantages of the closeness of city life and especially to grant its mighty protection to the weaker classes of its population.

Digitized by Google

Municipal Powers in New Zealand

The Municipal Association of New Zealand communicated the following by letter to the congress:

Sirs: The Municipal Association of New Zealand, Australia, was formed in 1891, and there are affiliated to it the councils of all the cities and large boroughs and of nearly all the smaller boroughs in the dominion. Its principal objects are to watch the legislation affecting municipalities, and to seek from time to time amendments in such legislation found to be needed for the more efficient carrying out of the functions of city and borough councils. Conference of delegates from the affiliated councils meet every two years for the purpose principally of pointing out to the government the needs of the municipalities in this respect. The association also procures legal opinions on questions of general interest to municipalities to be given and to be circulated among the affiliated councils.

The mayor of every city and borough is elected annually, and the councillors biennially, by the electors of the municipality. All the councillors go out of office at each biennial election, but are eligible for re-election. As a rule it is found that the mayor is re-elected for a second year, and that a large majority of the old councillors are returned at a new election.

Franchise Qualifications

The qualifications of an elector in a city or borough is that he is a ratepayer, or owns a freehold interest in land worth at least £25, or that he has resided for one year in New Zealand and for three months in the city or borough, and is a British subject by birth or by naturalization in New Zealand, or (in the alternative) has been for three months in occupation, as a tenant, of the whole or some portion of a building in the borough at a rent of not less than £10 per year. In the case of husband and wife, any qualification possessed by either of them is deemed to be possessed by each of them. An elector having several qualifications can be enrolled in respect only of one of them, and in no case has an elector more than one vote. Electors, other than freeholders or ratepayers, may not vote on proposals to raise municipal loans or to strike special rates to secure such loans.

As just indicated, loans are raised on polls of the freehold and ratepaying electors. There is no controlling authority here corresponding to the Local Government board in England. But a considerable amount of control over local bodies as regards a variety of matters is vested by different statutes in the governor in council, which virtually means the minister in charge of some department of state.

Taxation Systems

We have three systems of rating in force in New Zealand. Some local authorities rate on the 'annual value system,' a system based on the mode of rating in force in England. Other local authorities rate on the capital value of lands and of the buildings and improvements thereon. Still others rate on the 'unimproved value system,' under which a holding is rated at the value of the lands alone, treated as if there were no buildings or improvements thereon. In order that no monetary advantage may be obtained by a local authority by reason of the system of rating it adopts, it is provided that a rate of one shilling in the pound on the annual value shall be deemed to be equal to three farthings in the pound on the capital value, and that where a local authority has adopted the unimproved value system, it must strike its rate so as not to produce more than it could have obtained on the rating system previously in force in its district.

All municipalities have power to establish water, lighting and tramways, though gas and electric light works and tramways are also owned and worked by private companies. The city of Wellington owns the municipal waterworks, electric light works and tramways, whilst a private company owns the gas works.

The municipalities have power to engage in libraries, museums, music halls, gymnasiums, swimming baths and recreation grounds. Of late years the interest of citizens in works designed to better their corporate social life has been much quickened.

The borough accounts are audited by the government audit department.

Wide Powers to Local Authorities

The local authorities have wide powers in connection with drainage, sanitation and the suppression of nuisances, and there is also a government department of public health

Digitized by Google

(created in consequence of the outbreak in 1900 in some neighboring countries of the bubonic plague), which department has certain powers over-riding those of the municipalities. In Wellington, refuse is consumed in a destructor. Hospital and charitable aid boards exist for the purposes indicated in their name. The members of these boards are elected by the electors of the local governing districts situate within the larger districts over which the board has control. The necessary funds are found by the local bodies, subsidized by the government.

Fire prevention is attended to by municipal fire brigades, or by voluntary brigades, subsidized by the municipality.

The municipalities have no police under their control. The whole of the police force of the dominion is under the control of the government.

Education is also in the hands of the government. Local authoritis have, however, power to contribute funds to schools for manual and technical instruction.

We have the honor to be, sir, your obedient servants,

THOMAS M. WILFORD,
Mayor of Wellington and President of the Municipal Association of New Zealand.

T. F. MARTIN,
Secretary and Counsel to the Association.

Duties of an International Municipal Congress

Dr. Alexis Tlyin, Imperial Russian Technical Society, St. Petersburg

Dr. Tlyin, in a paper on the "Duties of an International Municipal Congress," said: "Every city brings some new idea to a meeting of this kind but takes away many new ones and for this reason we should have congresses, but more especially international ones, and for this reason I owe many thanks to those who are responsible for the idea of bringing together the different municipal officials, of this and other countries at this congress and giving an opportunity for the discussion of all municipal problems. But at the same time if we are to obtain these international results certain things are absolutely necessary. Not every subject is a proper one for international discussion. In every city government there may be three kinds of questions. The first has a particular reference to her own problems. The second group are those that are of interest to different cities in the same country. The third kind of questions are those that affect any city in the whole world.

"Proposed innovations should be theoretically worked out, and the author of the paper should have a thorough knowledge of all literature bearing on the subject. The success of municipal experiences must be carefully proved statistically, chemically, etc. Ordinary reports about municipal conditions can be interesting to an international congress only if a large amount of carefully developed material of many cities is submitted. There must be a comparison of technical, economical or other systems; they must be shown and criticised and the author of the paper should be acquainted with all literature bearing on the subject.

Preliminary Detail of Congress Organization

"Every person who writes a paper wishes to propose or prove something. His thoughts must be tested by the congress and either accepted by it in whole or part or may be rejected altogether. That we may have the opinion of the whole congress, by means of intelligent discussion, it is absolutely necessary to have the main thoughts of such paper, and the literature upon which they are based printed and sent to each delegate in advance of his coming to the congress.

"Every city, no matter where it is located, can give ideas that may be highly interesting to a municipal congress. The thought of such a congress is that the experiences of one city shall be used by other cities, but the city officials that take part in such a congress are not expected to know every language. Therefore, it should be so arranged that papers could be read in all languages and these should be translated by interpreters into the three main languages, French, German and English. Those responsible for the conduct of an international congress should see to it that the main thoughts of every paper and the discussion that takes place, are translated into these three languages.

"At every congress you will find presented papers of different qualities. Some give new thoughts and offer suggestions and show a serious preparation of the question under consideration. The next group, and this is the majority, give some good thoughts and a number of unimportant ones. The last group are those that amount to little or nothing. It is not the business of a Congress to listen to a mass of material and then print it in a report. On the contrary all the papers should be carefully considered by the congress and the final report should only contain that which will be worthy of every municipality's serious consideration. To this end it is absolutely neces-

Digitized by Google

sary to have discussions, and the more serious it is the more likely it will be for the congress to get a proper vision of the subject under consideration. Therefore, in my judgment, the discussions are the most important part of the congress. Without proper discussion we have only confusion.

"The congress should end its work by adopting or rejecting resolutions; then it is only in this way that a congress leaves its effect on the different municipalities. A congress that has not adopted any resolutions has in reality not done the work for which it was called together. The main duty of a congress, I take it, is to show the various city officials the proper solution of municipal problems and in this way to protect them from making costly and unnecessary mistakes. This can only be accomplished by the adoption of resolutions."

Digitized by Google

OFFICERS

HARRY A. WHEELER, President.

JOHN P. MANN, Vice-President for Interstate Division.

ALBERT R. BARNES, Vice-President for Civic-Industrial Division.

WM. REISS, Vice-President for Local Division.

EDWARD E. SWADENER, Vice-President for Foreign Trade Division.

HOWARD ELTING, General Secretary.

JOHN F. SMULSKI, General Treasurer.

OFFICIAL STAFF

HUBERT F. MILLER
Business Manager

WILLIAM A. GIBSON
Executive Secretary

WM. HUDSON HARPER
Editor "Chicago Commerce"

H. C. BARLOW
Traffic Director

W. R. HUMPHREY
Industrial Commissioner

GEO. E. PLUMBE
Statistician and Librarian

GEORGE M. SPANGLER, JR.
Manager, Convention Bureau

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

This book should be returned to the Library on or before the last date stamped below.

A fine of five cents a day is incurred by retaining it beyond the specified time.

Please return promptly.

Digitized by Google

Digitized by Google